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EKISTICS

HOUSING AND PLANNING ABSTRACTS

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ΟΙΚΙΣΤΙΚΗ

MAY 1958

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E K I S T I C S

HOUSING & PLANNING ABSTRACTS

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EDITORIAL

Innovation in the fields of housing and planning are confined to no single part of the world--as the abstracts and extracts in this issue of EKISTICS very clearly show.

In housing, for example, the probing search for solutions to the needs for the housing of the low and middle-income groups has recently produced several interesting ideas, from the "transportable" house designed by Dr. Johann Ludovici for the Congo region to the "transformable" house developed in Cap Vert. In the exhibition housing of Jamaica there is both a contrast and a similarity to the outstandingly successful prefabricated housing in Sweden. And to add a solution at quite a different level of costs, techniques and density, we include the new North Point Housing Estate of Hong Kong.

Innovation in the field of planning by no means only takes the form of New Towns though these usually provide a laboratory for testing out new ideas. However the establishement of a New Town does not always mean that new ideas will be tried out, and, in the two cases sited here, the lay-out and house designs are very clearly hang-overs from a period of at least half a century ago, crudely adapted for the auto-age. Unfortunately these are typical rather than exceptional examples, which lends weight to R. R. Anderson's thougtful re-appraisal of Vanderbijlpark, an extractive new town in South Africa. The geographical perspective of Humphrys' analysis of another such community, in the far northern reaches of Quebec, Canada, brings up the very important consideration of long-range continuance of extractive towns on the frontiers of human habitation. That innovation in city design can occur within old cities is clearly indicated by the magnitude of the architectural impetus in the ancient city of Baghdad, where the works of Le Corbusier, Wright, Sert, Ponti, Aalto, March, Doxiadis and other are to be integrated.

The information upon which plans are predicated often results from innovation of another kind--that of research. Demographic studies and land use studies in New Zealand, for example, have been done, virtually for the first time, by Miss Northcroft. And the demographic analysis of much broader areas, such as that by Kingsley Davis for the Western Hemisphere, provides a fresh approach to a subject of utmost importance to us all.

Finally, in the realm of international relations, two United Nations publications show an ever renewed search of method to aid in development of the underdeveloped regions of the earth. One is a discussion of the agricultural plans for several countries in the Far East and Asia; the other a consideration of the establishment of a new Economic Commission for Africa which indicates the upsurge of seeking new ways to meet problems as old as the earth and as new as today.

EKISTICS is compiled by Yvette and Lawrence Mann under the direction of Prof. J. Tyrwhitt. Enquiries or comments should be addressed to 77 Trowbridge Street, Cambridge, Massachusetts, USA.

NOTE: The lettering at the top of each page refers to Doxiadis Associates system of classification. The figures below each title refer to the Universal Decimal Classification.

HOUSING

E.S.T.

Architect and Building News
THE IDEAL HOME
"Notes and Comments," Vol. 213:7 (12 February 1958) p. 205. Illustrations.
728.37

1. This is a comment on the design of speculative builders' houses, with special reference to two designs by Dr. Johann Ludovici, shown at the Ideal Home Exhibition, Olympia, in March 1958. Of the better builders' houses recently seen, only one was slated for this show. While this is disappointing, it is at least a beginning.

> "In the past there have occasionally been well-designed small houses, but these have nearly been the results of special competitions organized by the Daily Mail. In the main these praiseworthy efforts to improve the breed have only led, in the next exhibition, to minor face-lifting operations on the builders' previous design."

2. Of the two imports from Germany which were designed by Dr. Ludovici, one is illustrated below. This structure is commented on as follows:

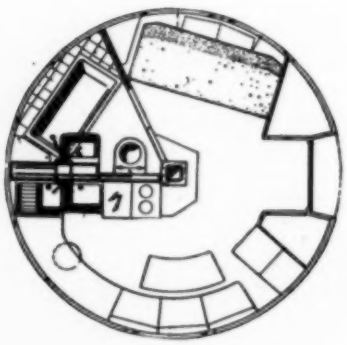
> "It is 14 ft in diameter, weighs about a ton and can be transported on a raft or by helicopter--or presumably by rocket. It is mainly intended for places like the Belgian Congo, where there are no roads."

It is suggested that one might like to sacrifice some of the sanitary appliances for a little more elbow room.

3. The other house which was designed by Dr. Ludovici is called the "roof house." It is said to have been developed as a result of a request by the Greek Government for a house capable of giving protection from lava following an earthquake. The description given is as follows:

> "The house is pyramidal and has no walls. If, however, the inhabitants get tired of living in this ground-floor atic they can, if the danger of lava passes, jack the roof off the ground and insert walls to form a lower storey to taste."

4. Both are described as "ingenious inventions," but neither is felt to make "much of a contribution to architecture."



The Round House; at this year's Ideal Home Exhibition

E.O.P.T.

The Caribbean
TACKLING THE HOUSING PROBLEM IN JAMAICA
Vol. 11: 6, January, 1958. (The Caribbean Commission) pp. 122-125. Illus.
333.322 (729)

1. This article, which is based on official information, gives some idea of the practical manner in which Jamaica's new Department of Housing is approaching the island's housing problem. By Jamaica's new Housing Law (Law 67 of 1955) the former Central Housing Authority was merged with the Hurricane Housing Organization to form the new Department.

2. The recent announcement that the Government of Jamaica had formulated a £5,000,000 housing programme for immediate implementation affirms the strong support by that government of the Disraeli dictum that "the best security of civilisation is the dwelling." The new Housing Department, operating since April 1956, has very broad powers which are aimed at improving housing conditions throughout the island. It seeks to do this partly by building estates for the lowest income groups and partly by demonstrating what can be achieved in the middle and lower-middle income levels.

3. Before the creation of the new Department, the Central Housing Authority had been giving more attention to Middle Class Housing and arrangements had been completed for the carrying out of a Middle Class Building Programme at Hamstead Park with the funds of a private investment company. The Central Housing Authority had been made responsible for the development of the area and the sale of lots. This scheme is said to be first of its kind to be carried out with funds from private enterprise. Construction of tenements in a part of Trench Town (subsequently named Federal Gardens) was also begun. These tenements are an improvement on the usual one-roomed units. The scheme consisted of seven two-storey blocks of eight units per block and two single-storey blocks of eight units per block. Each unit comprises two rooms with individual kitchen and latrine shower compartments of concrete blocks.

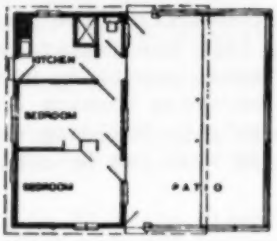
4. The first effort of the new Department of Housing was a speed-up of the 1951 Hurricane Housing Programme, which was scheduled to be completed at the end of March, 1957. The result was that 595 urban units and 1,452 rural units were completed during 1956. Thw two-room self-contained flats at Federal Gardens were also completed during the year, and each unit rented at approximately 16/- per week* This new experiment in housing standards is considered to have proved highly successful. The Middle Class Housing Scheme at Hamstead Park was well advanced by the end of 1956, and the Department showed some interest in the procedure and costing of this pilot scheme.

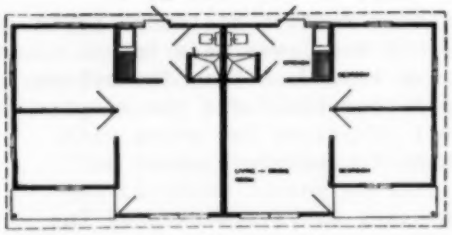
5. Norman Range, another middle class housing scheme which is also considered pilot in nature, was started during the year. This scheme consists of 26 duplex (semi-detached) houses each unit having two bedrooms and sanitary conveniences upstairs, and living room, kitchen and car-port on the lower floor. It is a comparatively new type of housing in Jamaica.

6. The facilities for Title Law was brought into effect to help owner-occupiers who could show no title for their land. This proved very helpful to applicants under the Owner-Occupier Scheme, and 232 titles were approved during 1956.

*16/- per week = $2.22 or $9.00 per month (US)

The Patio House as it has been already dubbed, is perhaps the most unusual design of those on the August Town Exhibition site. It is an attempt to give the very largest usuable living area for the very smallest amount of money. Floor area, 756 sq. ft. Cost, £675. The roof of the dwelling area is the invention of a small Jamaican builder and consists basically of about ⅝" of a built-up marl cement, reinforced by chicken wire and laid over a building paper on battens.





This semi-detached duplex house attempts to provide the largest enclosed floor for the lowest price. The bathroom position is not always acceptable to occupiers, although it is now common practice by the Housing Authorities of British Guiana and Barbados. However, it provides the necessary facilities in a small floor area and so lowers cost. Alternative versions with the bathroom approached from an outside door are possible, but at slightly higher cost. Estimated cost, £550.

The Caribbean. Tackling the housing problem in Jamaica -2

7. An Architectural Division in the Department of Housing now takes over the following, formerly charged to the Town Planning Department:

a. The design of dwelling and house types to agreed space standards to suit the various income levels in the population.

b. The layout of dwellings in the most economic manner in relation to urban and rural conditions and to desirable densities according to income levels.

c. Developmental work on various methods of dry and wet constructional methods in order to lessen house construction costs.

New Trends

8. These new trends are the main principles on which the Department has administered since its coming into operation.

a. Debtor-Creditor Relationship: Establishment of a better debtor-creditor relationship in order to collect the large amounts due on both rental and hire purchase schemes. This is being implemented on the basis that individuals who are able to pay their instalments but refuse to do so should be ejected, and alternative accommodation should be found for the indigent cases. In effecting this policy the Department endeavours in every instance to find lower rental accommodation for individuals who are to be ejected.

b. Sale of Land: Sale of lots only, which was considered a normal function of the former Central Housing Authority, has been abandoned, except in cases where contracts actually existed for the sale of such lots, as the Department's policy is now to sell a complete unit (lot and house) as any other programme would not assist in alleviating the housing shortage. The Department's policy is to sell commercial, church and re-possessed lots (whether under the former Central Housing Authority or Hurricane Housing Organisation programme) at a price based on the current market value.

c. Low-Income Housing: The Department will in the future build rental units only when it is absolutely necessary for housing individuals who cannot be housed otherwise. The emphasis will be placed on sales schemes--the units being based on a standard living requirement of 50 square feet per person for an average family of four persons. This is considered the minimum requirement under ordinary health standards, and these units are estimated to cost approximately £500*, with kitchen and water-borne sanitation facilities where possible. Recommendations have been made that both the Owner-Occupier scheme and sales schemes in the future should be based on a unit value of £500 with the individual owner-occupier or purchaser enjoying a free grant of £100. Houses costing over £500 would have to be fully funded by the purchasers.

*£500 = $1,390 (US)

The Caribbean. Tackling the housing problem in Jamaica -3

d. Middle-Income Housing: The Department is of the opinion that a favourable climate should be established in order to attract the capital necessary to provide this type of housing either on the mortgage/insurance plan, or by the guarantee which Government can offer in accordance with the Housing Law. The Department should be responsible for the layout and designs of future schemes and maintain constant inspection to ensure that the houses are built according to specifications.

9. Following the policy of demonstrating what can be achieved, the Department has built Exhibition Houses at August Town to serve as models for the so-called lower-middle income groups. These houses were to illustrate durability, comfort, attractiveness, and economy, and they are still extremely experimental at this stage. The houses were designed by Mr. J.D. Oakley, Architect to the Department of Housing; and they were constructed by small contractors under the supervision of the Department's Chief Engineer, Mr. W.J. Avery.

£1. 0. 0. = $2.80 (US)

E.G.S.T.

Engineering News-Record
ALL-ELECTRIC HOUSING PROJECT
Vol. 160: 4 (April 3, 1958) p. 25. Illustrations.
697.71;.97 (73)

1. This is a discussion of the largest housing project to date to include an all-electric heat-pump (heating and cooling) system. The project is located in the corner of an airbase in Arkansas, USA. Privately financed, with federal government insurance, this is a 1,535 unit project, with costs averaging $13,500 per unit.

2. Each unit has a 2.5 ton split-system heat pump, which was designed for the project. Heating and cooling coils and blower are located inside the houses, while the compressor and other working parts are outside. The inside part of the heat pump, as well as the water heater, is located in a utility closet.

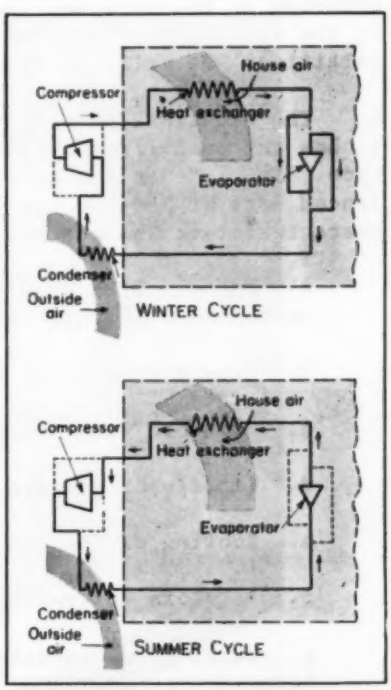
3. The refrigeration lines run from the compressor unit, beneath the foundation, to the part of the pump which is inside. Each housing unit has about 100 feet of 5- or 6-inch round galvanized-steel ducts for the high-velocity air-distribution system. The heated or cooled air empties into ciruclar diffusers placed in the center of the ceiling in each room.

4. The pumps were designed to maintain a temperature difference of 25°F and 65°F in winter. Each is expected to consume an average of about 5,800 kwh of electricity per year.

6. Among the advantages of the so called "remote unit" heat pumps are the following: Less floor space required; easier application from mechanical and architectural viewpoints; and low noise level, since the compressor is outside.

5. The houses will be structures of one-story, and they will have all-electric kitchens. Floors of the homes are concrete slab on ground with 2-inch foamed-polystryene perimeter insulation. Interior walls are plasterboard and outside walls are wood and brick veneer. Ceiling and wall insulation is glass fiber.

7. Architects for the project were the local firm of Wittenberg, Deloney and Davidson. General construction was by a Low Angeles company, and the heat pumps were produced by the Mathes Co., of Forth Worth, Texas.



HEAT PUMP CYCLE—In winter, heat is extracted from outside air and discharged inside. In summer, procedure is reversed.

E.P.S.T.

Hartwig, Guy
LA MAISON TRANSFORMABLE DE LA SOCIETE IMMOBILIERE DU CAP-VERT
(THE CAP-VERT BUILDING SOCIETY'S TRANSFORMABLE HOUSE)
Bureau Central d'Etudes pour les Equipements d'Outre-Mer, Bulletin d'Informations, No. 5 (Premier Trimestre 1958) pp. 2-12. Illustrations. Text in French.
728.3 (6)

1. This is a presentation of one aspect of the work of La Société Immobilière du Cap-Vert, which was founded in 1950 to solve the housing problems of Dakar. Mr. Hartwig is Directeur General Adjoint of the Société.

2. From the beginning, the Society has attempted to give satisfaction to the individual, and toward this end it considered the Mussulman's preference for a particular type of dwelling, surrounded by a fence and with individual interior courts. Also considered were the personal desires of hundreds of applicants for rental dwellings and the layout and transformations solicited by occupant-renters.

3. Based on various sources of information, and keeping to the need (common to several building societies in Africa) of building a great deal at a low price, the SICAP studied a particularly economical house. The first prototypes were erected in 1955 in the subdivision of Baobabs. The house was called the "maison transformable" because of its characteristic adaptability through the years--through an interior rearrangement which is easy to accomplish and in keeping with the essentially variable African family. It is a question of offering to the occupant the possibility of adapting his own domestic space to the evolution of his family's needs. This is effected through removable partitions and walls in the interior of a finished structure.

4. The technical characteristics of the "transformable house" indicate that it has the same floor surface (70 m2) as single storey houses of the normal type. It also has the same general characteristics (water, electricity, sewage, fenced lots of 250-280 m2) as similar normal-construction houses. Special characteristics include the following:

a. Masonry with an 0.15 groove in blocks of 15 x 20 x 40 for the exterior walls and 0.10 thick for the interior partition-walls;

b. Plaster-coat 0.02 thick;

c. Woodwork with a metalic framework

d. Lintels of precast concrete

e. Roofing of undulating asbestos-cement tinted red;

f. Aerators to ventilate under the ceilings

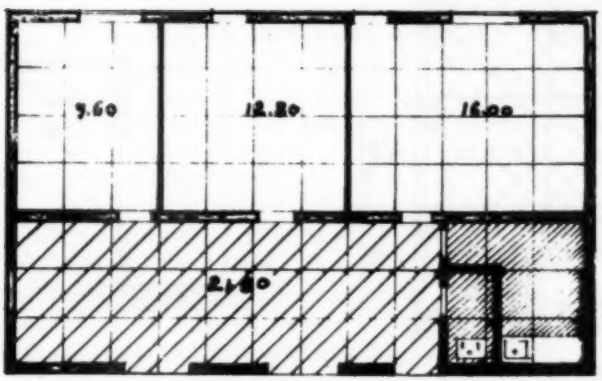
g. Ceilings of asbestos-cement slabs within a metal structure of T & L beams.

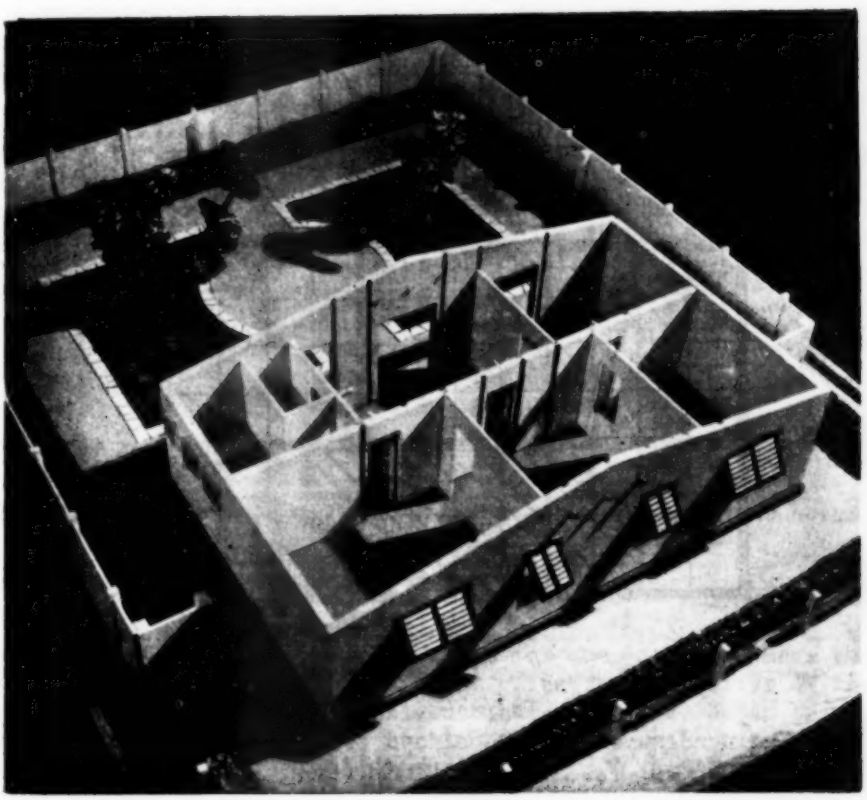
h. Floor slabs formed in concrete with a wearing coat of 0.02, tinted with iron oxide.

i. A washing vat in moulded concrete.

Bureau Central d'Etudes pour les Equipements d'Outre-Mer. Bulletin d'Informations No. 5. Jan./March, 1958.

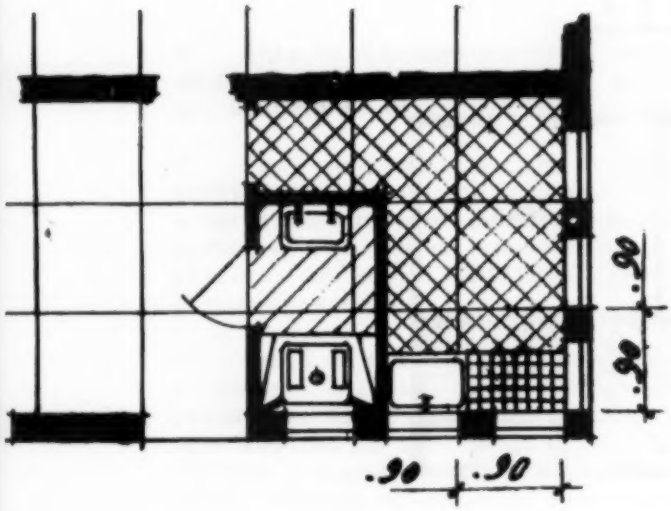
3 PIECES



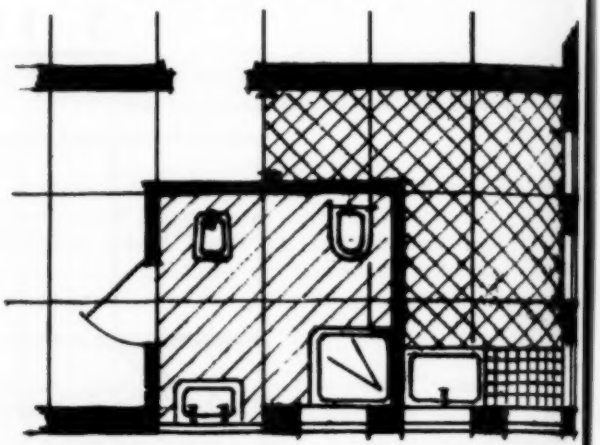


Bureau Central d'Etudes pour les Equipements d'Outre-Mer. Bulletin d'Informations No. 5. Jan./March 1958.

GROUPE SANITAIRE "NORMAL"



GROUPE SANITAIRE "DÉVELOPPÉ"



4 PIECES
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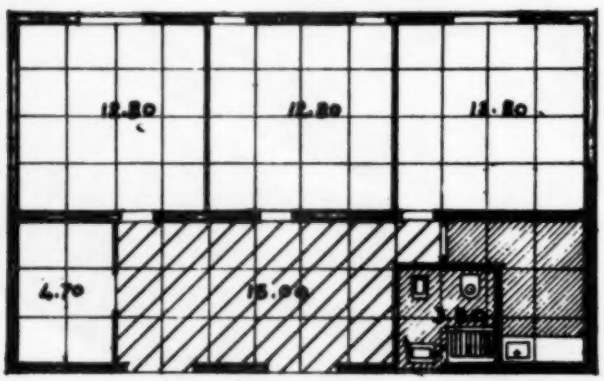


Hartwig, Guy. La maison transformable de...Cap-Vert -2

5. New characteristics of the transformable house are summarized in three points:

a. Separate houses of one storey only (contact with the ground, delimitation of the property). They can, of course, be paired without difficulty.

b. Two parallel habitable strips, separated by a partition wall. The larger is intended for the implantation of habitable rooms, having a certain number of openings supplied with joints. The second is half-open for use as a verandah. Its width, however, permits the installation of several habitable rooms, on all or part of its surface, by simple dressing of the joints with the interior bays and partitioning: independence of the dwelling "cells," large verandah, cross ventilation, and liberty of arrangement.

c. Sanitary group opens on the covered verandah, therefore allowing easy extension of the bathroom. Moreover, the shower being installed directly above the Turkish-type seat with a movable grating enables the future installation of a wash basin or an English-type seat without surface modification: Incorporation of sanitation, possibility of extension.

6. It would have been imprudent to leave the organization of the interior to the inspiration of the occupants alone, with a great risk of excessive and awkward compartmentalization going against the elementary rules of hygiene and urbanism. It was useful, however, to fix the norms of utilization and amount of evolution permitting the obtaining of the greatest number of rational arrangements. Further, a single module had been chosen for the whole of the composition. The cote of 90m was chosen as it adapted the best, in its multiples, to the human scale: 0.90, 1.80, 2.70, 3.60, 4.80, 5.40, etc. This module is found to be happily completed by the traditional modulation of openings: 0.70 and its multiples 1.40 and 2.10. Therefore the ceiling height has been fixed at 2.70m, the width of the "habitable" strip at 3.60m (obstruction of the partitioning deducted):

270 x 360 = 9.60 m2
360 x 360 =12.80 m2
450 x 360 =16.00 m2
540 x 360 =19.30 m2
etc.

The "verandah" strip, with a width of 2.70m, enables a similar normalization:

360 x 270 = 9.60 m2
450 x 270 =12.00 m2

The openings, doors and windows envisioned for the structure have been judiciously placed in order to restrain and guide the initiative of the inhabitant and make him respect, quasi-automatically, the chosen norms. In this way he will perform interior architecture without knowing it.

Hartwig, Guy. La maison transformable de...Cap-Vert --3

7. A house of this sort offers a great number of different arrangements to the taste of the inhabitants: from a large verandah to its absolute suppression, from the multiplication of identical cells to the contrary single large "piece de séjour," from direct transversal ventilation to indirect, minimum or developed sanitation, and variable (6 maximum) number of habitable rooms. Despite this large diversity and liberty given the inhabitant in the organization of the interior according to his taste and needs, the advantage is retained of an ability to develop harmonous subdivisions in which the infrastructures remain of a constant quality and aesthetic.

8. Concerning the material installation of the partition not built in the possible solutions are many. They vary from a simple curtain, or the astute disposition of the furniture, to the traditional solutions (of clinker tile, bricks, etc.) or prefabricated panels of simple employment and maximum economy. Thus, for a very low cost for furnishing, the African can possess a dwelling of a large surface area, of fulfilled comfort and a very reduced rent price.

9. The price obtained (on a call for offers at the site) was 532,372 F* for this model house; and this is 102,000 F less expensive, for the same floor area, than the normal 4-room house. The cost of a lease-sale (for ten years) is only 7,200 F for the "maison transformable," while it is 10,500-11,000 F for the conventional 4-room counterpart. There is thus a savings of about 35%, which quite fulfills the aims of the research undertaken. It can be calculated that the economy gained by each inhabitant of the "transformable house" in one year, compared to the costs of living in a conventional 4-room house, is approximately 36,000 F. This is said to be enough to cover the most costly type of interior partitioning.

10. It is interesting to note that the price of 7,200 F for lease-sale has so attracted the African population that there is hardly any demand for the simple monthly rental at 5,000 F. That the Senegalese people, who find the "maison transformable" at once economical and perfectly adaptable to the Musulman way of life, have contributed to the great success of the experiment comes as no surprise. The demand for hundreds of these houses has mounted during the past two years.

11. This is a case of the simplest formula being the best. Beside the profoundly anchored human desire for a "chez soi," there is another aspiration to which the "maison transformable" responds. On being a property owner, the home can be planned in an entirely personal manner; one feels proud to have contributed to it and shows it to his friends and neighbors. Competitions indicated that the SICAP had no need to stimulate this motive. There was even the need and the obligation to restrain it because rules of sound planning and simple aesthetics were being bypassed.

*French West Africa francs: 1.000 Frs = $4.80 (US)

E.F.O.P.S.T.

Hong Kong Housing Authority
NORTH POINT ESTATE, JAVA ROAD, HONG KONG
Announcement of Opening, 25th November, 1957. Also Paper no. H.A. 109/57 (9th October, 1957) and Paper No. H.A. 4/58 (17th January, 1958). Publicity Reports for the periods 1st July-31st December, 1957.
728.2 (51)

1. This is a discussion of the construction and opening of the North Point Housing Estates in Hong Kong, based on material provided EKISTICS by the Hong Kong Housing Authority. The North Point Estate is the first of the projects undertaken by the Hong Kong Housing Authority to be completed. The architect Mr. Eric Cumine, F.R.I.B.A., was appointed in September, 1954 to design a housing scheme for about 10,000 people in multi-storey blocks, with consideration of local customs and conditions of living.

2. The estate occupies a site of about 6.5 acres at Java Road, North Point, overlooking the harbour. It is located between Java Road and the praya, and consists of three main sections or courts. The West Court, to which the opening ceremony (November 25, 1957) was confined, consists of a U-shaped perimeter block and one tower block; the Center court is one long block facing a large concourse; the East Court consists of a U-shaped perimeter block and three tower blocks. The open areas on the estate will have gardens with walks and children's playgrounds; in the West Court are two full-size basketball courts. Along the harbour frontages of the East and West Courts are wide promenades. The tower blocks have ten storeys of flats above their ground floors.

Method of Construction

3. The buildings are of a simple monolithic reinforced concrete frame, with brick infill walls, cement floors, steel windows, hardboard doors and brick partitions. There are 4 inch slab floors and ceilings, with an occasional hollow block rib joist floor. All the blocks are 100 ft. high, and are supported by concrete piles. As the site is reclaimed land, nearly 3,000 piles had to be driven to depths of up to 105 ft., with a bearing stress of up to 80 tons, and this part of the work alone cost more than $3,000,000. (The total cost of the scheme is just over $33,000,000, including over $4,000,000 for the land, and this has been met by a loan from the Government Development Fund; the period of amortisation is forty years, and the rate of interest will be paid at 3.5% per annum).

4. The individual blocks have been so designed that the gross depth of the R.C.C. frame is more than half the height of the buildings, thus minimizing the effect of wind pressure on this somewhat exposed site. Access is by a central corridor, but the line of flats on either side has been broken at regular intervals, so as to allow all rooms to be provided with windows and to give excellent cross-ventilation in the individual flats. The R.C.C. frame has been designed so as to extend the gross width of the building, thus giving a more pleasing elevation, where otherwise extensive flat and uninteresting masses would be presented.

5. Piling commenced in October, 1955 and was completed in May of the following year. Building had been due for completion in late August, 1957; but rains in May, 1957 and the "Typhoon" Gloria in September hampered work and caused fairly extensive damage. An idea of the extent of the work, in which 2,700 workmen

$1,000 (Hong Kong)= $177.50 (US0

were engaged for nearly a year, may be gained from the quantities of materials used: 5,500 tons of reinforcing steel, more than ten million bricks, 11,000 steel windows and doors, 8,000 wooden doors, and 23,000 tons of cement.

Flats

6. The estate contains 1,955 self-contained flats of different sizes to accomodate from three to eight persons. Rents vary from $60 to $138 per month,* exclusive of rates. When the flats are fully occupied, the total population will be over 12,300--making a density of about 2,000 to the acre.

7. Each flat is provided with a kitchen with a fire-clay sink, w.c., shower and wash-basin, balcony, and a smaller utility balcony for storage and clothes-drying. It is intended that cooking will generally be by kerosene stoves. The electrical installation is simple, with a ceiling light point in each room, a light plug in the living room, and two power points in each flat. There is a wireless (radio) aerial plug in each flat, radiating from a central aerial system on the roof of each block, together with a Radiffusion plug for those tenants who require it. The estate has its own transformer rooms, installed by the Hong Kong Electric Co.; and this equipment is installed in the two "flying saucers" at the front of the Center Court.

8. Sea water from five harbourside wells will be used for flushing, so as to ensure a constant supply during the dry months, and bronze-type pumps and piping are fitted. Water supply and waste pipes are of copper, except for the main trunks which are of cast-iron. Refuse chutes are provided on each floor, placed where possible on the immediate floor landings. These chutes are built to British Standard Specification, and refuse will be removed from the chambers on the ground floor by specially equipped refuse vans. There is a main water supply, separately metered, to each flat. There are twenty lifts or elevators in all--automatic and operated by the passenger. The lifts will operate on the "skip floor" system; that is, they will stop only on the ground, 4th, 6th, 8th and 10th floors (Chinese counting system), and tenants living on floors not served can walk either up or down one floor.

Other Facilities

9. In addition to living accommodation, the estate also contains certain public facilities, situated on the ground floor of the West Court. These include an 18-classroom primary school, with special rooms for woodwork, housecraft, etc., as well as offices, lavatories, etc. There is also an out-patient clinic and a school health clinic, which will share a pharmacy, and a post office. These public facilities, which will eventually be purchased by Government from the Housing Authority by means of a credit in the capital loan account, will be run by the Education, Medical and Post Office departments respectively; and they have been designed to their specifications. They are for general public use and are not reserved for the tenants on the estate. All are now in full use.

10. There is a Community Centre, which will seat over 500 persons, with attached lobby, lavatories and a store. Seventy-one shops (which will be let eventually by public tender) are incorporated in the estate, around the ground floor perimeter. These are of varying sizes, but all are provided with a

*$60 a month (Hong Kong) = $10.65 (US)

Hong Kong Housing Authority. North Point Housing Scheme.

Fig. 5. Photograph taken on 6th December, 1957, of the interior of the West Court, showing the children's playground in use.

Fig. 7. View of the West Court, taken from the harbour on 30th September, 1957, looking south, showing the Community Centre to the left of the point block, and clinic to the right.

kitchen, cockloft, wash-place and w.c.; and most have an enclosed (but uncovered) yard at the rear. The shops will include cafes, restaurants, tailors, grocery stores, hairdressers, etc. A bus terminus will later be constructed (by the Public Works Department) on the central concourse; and it is also planned to build there a vehicular ferry pier, with a service running to Hung Hom. The shops will be available for lease as soon as roads and pavements around the estate have been constructed. And alterations required for licensing of some tenants (cafes, restaurants, etc.) have been made by the Authority in order to avoid delay in occupancy.

Schedule of Occupancy

11. The 660 flats on the West Court were taken over on November 20, 1957, just prior to the opening ceremony which was restricted to this and the facilities area. The Center Court was completed and taken over from contractors on December 3, and the East Court on December 23. Horticultural work on the West Court had been completed by the Gardens Division of the Urban Services Department for the opening ceremony. Flats are now being allocated in accordance with the Authority's tenant selection policy. The first letters notifying successful applicants were posted by the Governor after the opening ceremony.

12. Arrangements are being made for the recruitment in the U.K. of a housing Manager to take charge of the North Point Estate. It is also intended to proceed soon with recruitment of an Assistant Housing Manager and an Architect.

E.S.T.

Prefabrication and New Building Techniques
LOW COST HOUSING IN SWEDEN: Manufacturers Claim Up to Fifteen Per Cent Cost Reduction over Traditional Building.
Vol 5: 52 (February 1958) pp. 167-171. Illustrations.
728: 68.002 (485)

1. The costs of building in Sweden, as elsewhere, steadily increased during and following the last war. This had meant that Swedish industry had to increase wages so that its workers could obtain homes. Two of the larger industries of the country (Uddeholms AB: lumber, pulp, paper, steel; and Skanska Cement AB: the leading Swedish cement manufacturer) decided in 1944 to find methods for cheaper production of houses. The two companies started a special research corporation called "AB Bostadforskning" or "Home Building Research Corporation," which had as its purpose the finding of new and less expensive means to produce houses for industry's workers and employees. This organization started its work then fourteen years ago with little capital of its own, but with generous support from its sponsors. From the beginning it was stated that the aim of the company was to forward technical and industrial research of which the findings should be made available to the entire industry of Sweden. No prejudice for the building materials of the two supporting parent companies was to be allowed in choosing material or construction. Lennart Bergvall and Erik Dahlberg, two architects familiar with standardization of building materials and modular coordination, were appointed to carry out the research programme. By 1948 several of the larger Swedish industries joined the two parent corporations in forming a production company called "AB Elementhus" or "Element Houses Co." This new company was to produce houses, based on the method and inventions of AB Bostadforskning, for industry.

2. Such houses have now been in production for about five years. Prices, compared to traditional houses of equal size and quality and equipment, are variable. But, due to technical research, they generally are ten to fifteen percent cheaper.

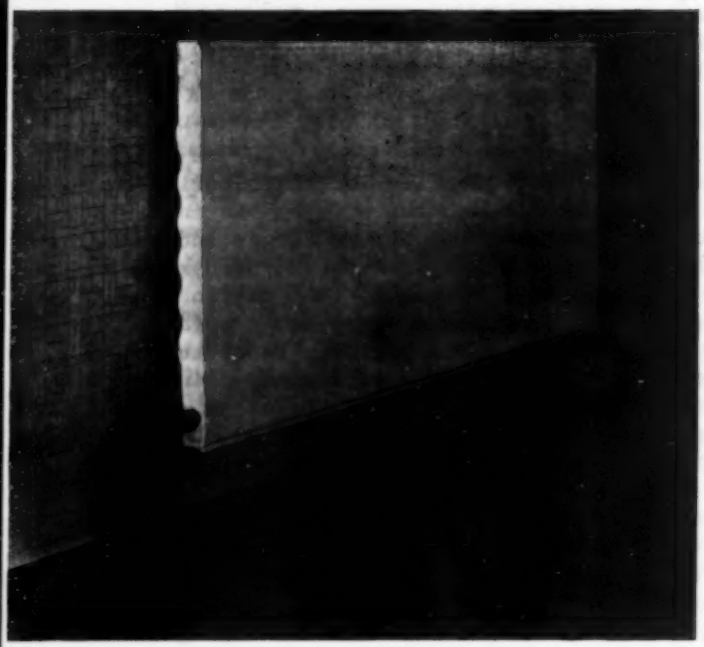
3. Results have been achieved by following these principles:

a. Rationalisation work has included all or nearly all parts of the houses and all steps of operation, such as factory production, storing, transport, and site erection.

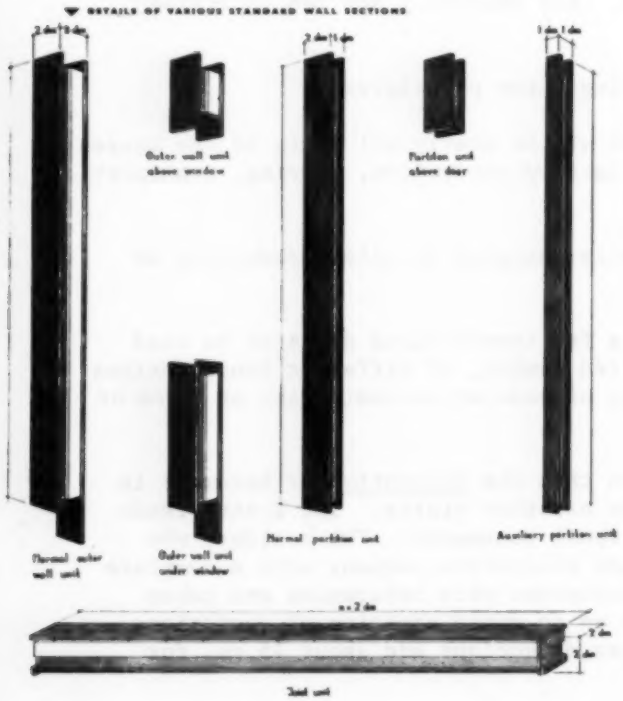
b. Methods have been found and details designed to allow production of the parts on an industrial scale.

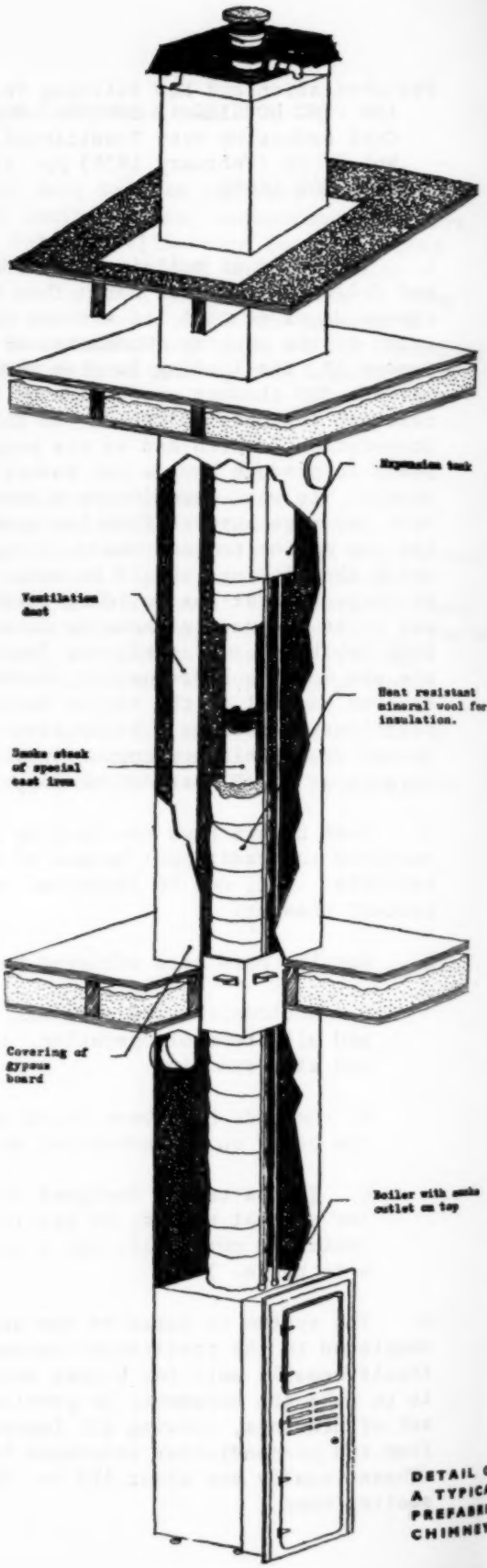
c. The parts are designed to allow a few standardized parts to be used for a great number, or nearly unlimited number, of different house designs (which in turn calls for a strict use of modular co-ordination on 10 cm or 4 in. basis.)

4. The system is based on the assumption that the foundation or basement is completed in the traditional manner before erection starts. The system lends itself equally well for houses with or without basements. The builder, who is to make the basement, is provided by the production company with a complete set of drawings, showing all important dimensions with tolerances and taken from two perpendicular reference lines so as to avoid addition of deviations. (These usually are about ±10 cm. for larger dimensions and about ±5 cm. for smaller ones.)



The radiator above is warmed by a simplified one-pipe hot water system the pipes of which are pre-cut, bent, threaded and painted before site delivery


DETAILS OF VARIOUS STANDARD WALL SECTIONS
Outer wall unit above window
Partition unit above door
Thermal outer wall unit
Outer wall unit under window
Normal partition unit
Auxiliary partition unit
Steel unit


Expansion tank
Ventilation duct
Heat resistant mineral wool for insulation.
Smoke steak of special cast iron
Covering of gypsum board
Boiler with smoke outlet on top

DETAIL OF A TYPICAL PREFABRICA CHIMNEY

5. To allow industrial production and yet hold to freedom in design, the walls, floors and ceilings are built of completely prefabricated sections of only 8-inch width and in lengths corresponding to room height and floor span respectively. The exterior wall units and the floor and ceiling units have the same cross-section, but they have a smaller thickness: 4 inches. The thickness of the exterior walls is a necessity because of the severe climate in parts of Sweden.

6. Potential difficulties from the great number of joints have been overcome successfully in a system which lends itself very well in being used in a more or less mechanical production line for panel manufacture. Moreover, panels of 8 inches make for much easier arrangements for a continuous process of gluing than would panels of widths up to 3-4 feet. Since it is quite important that the addition of dimensional deviations occur in the erection of the structure, all units are fixed to wooden sills at bottom and top of the walls. The walls are perforated with great precision, for it is these holes which determine the position of each unit. The units are tongued and grooved and simply pushed together on site, being fixed by the sills as described. To obtain rigidity against wind forces for the wall and roof construction, the tongue of one panel in each unit is fitted with dowels for which the groove has holes on the opposite side. After the units have been erected and jointed to the sills, the dowels ensure the rigidity of the wall or floor.

7. Exterior wall units are either oil painted in the factory or covered with thin oven enamelled aluminium sheer. But they could also be given a transparent wood finish, as long as selected boards are used for the surface--or if special woods as red cedar (not found in Sweden) are used. Generally the laminated construction allows the use of comparatively low grade timber.

8. The need for dimensional control has also led to a prefabricated chimney construction, which allows the chimney to be erected without any bricklaying. Special technical problems occur in designing a chimney suitable for the several kinds of fuel used in Sweden. (Wood fuel especially often causes fires in the chimney.) The chimney consists of a special cast iron pipe, insulated with mineral wool, resistant to high temperatures (up to 1,800 degrees F.) The pipes are jointed with a special joint, resistant to the high temperatures and the expansion of the iron pipes.

9. Heat installation. This consists of a simplified one-pipe hot water system, specially designed to allow simple erection on the site of precut, bent, threaded and painted pipes and parts. Although extremely useful in a country like Sweden, where central hot water heating is almost a rule, the system can be easily adapted to other types of heating. For example, it could be easily arranged for semi-central heating based on an open fire with a back boiler--a typical arrangement for Great Britain.

10. Other pipe and sanitary installation is usually applied on site, but the pipes and parts are precut, bent, threaded and painted. The bathroom installation, however, is nearly 100% prefabricated. The bathroom floor consists of ordinary floor panels, to which is added a special watertight and prefabricated floor construction of moulded plastic.

11. Electrical installation above the basement consists mainly of special wall and floor blocks with electric wiring and devices such as switches or outlets, applied at the factory. These wired elements are connected at the site with a ribbon of wires which is applied behind a cornice. The ribbon

is produced at the factory with wires and connections ready, similar to the methods used in the automotive industry.

12. Kitchen cabinets, wardrobes, and similar equipment are designed to insure dimensional stability, thus allowing them to be stored and shipped in flat pieces, which are assembled to complete units just before shipping. Thus the cabinets, cupboards, etc., are not of solid wood, but built up of hardboard on a wooden framework.

Erection on Site

13. Since this does not take more than about two weeks in the ordinary house it is extremely important that the erection work is not delayed by waiting for one or more missing parts. Thus, practically all parts necessary to complete the houses are assembled in a storehouse at the factory and then shipped to the site in five-ton containers. Company employees handle both loading and unloading of these containers. It is not presently economical in Sweden to ship the containers directly from factory to site by truck transport alone. Combined rail-trucking transport is therefore used.

14. Normally a crew of four completes erection, and only one or two of each crew need to be skilled through company training. All of the crew, however, must be able and willing to perform various jobs on the site and to work as a real team. An agreement with labour organisations on these problems has been reached--making it possible to overcome such difficulties as jurisdictional disputes, which many builders had prophesied.

Manufacture

15. Since the product was entirely new, manufacturing required a special process and special machinery being designed. It has thus been possible to develop an industrial process in which the timber is utilized 100%. Timber not used in the laminated boards, in carpentry details, or as insulation in the form of compressed shavings is used to feed the steam boilers for the drying ovens. Some of the more interesting problems have been the development of a continuous gluing of the structure panels, a method for the storing of shavings and sawdust in silos, and a method for compressing the insulation in the panels.

16. The continuous gluing machinery is of special interest. As indicated, all structural panels have a box-like section with flanges of three-ply 3/4 inch by 8 inch cross laminated boards and beds of 1/8 inch hardboard. These panels are glued automatically so that first the laminated boards as well as the hardboards are glued together in endless, continuous bands. These are then joined together--with glue applied--to a box-like section with HF heating, planed to correct size, cut with a photo cell device to proper length, and thereafter sealed and filled with insulation.

17. The hardboard pieces are HF glued together with bevelled edges. The laminated boards are built up of a standard size of board, being approximately 1/4 inch by 4 inches after being planed ready for gluing. These boards--lengthwise as well as crosswise--are stored in magazines ahead of the press and fed automatically into the press after the glue is applied. The press is of a special 'clamp train' type rather than the 'tractor belt' type previously tried in some other constructions. During the passage through the press with a speed of 20-30 feet per minute, the boards are fed with HF energy so the glue is cured. Both flanges are glued at the same time in the press (two levels).

PLANNING

J.O.U.

Anderson, P.R.
VANDERBIJLPARK - REAPPRAISAL
South African Architectural Record, January, 1958. pp. 29-36. Illus.

1. This is a discussion of Vanderbijlpark, a "New Town" in the Southern Transvaal, and of the South African setting in which such towns are established. Vanderbijlpark was first planned by the South African Iron and Steel Industrial Corporation, Limited (Iscor) as early as 1941, and construction dates from 1946.

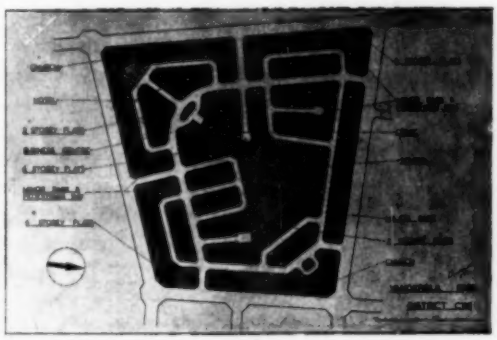
> "New Towns or planned towns differ from normal towns in as much as they are conceived as a whole and developed largely by one organization. In South Africa they have arisen from the need of industry to establish itself where no town already existed. .....They aspire to become self-supporting towns in their own right, but this takes time. New Towns differ also from the normal town in that their speed of development up to a certain stage is greatly accelerated and that this acceleration gives rise to an unbalance which, while it exists in all towns, is accentuated in New Towns. There are special difficulties of finance, control at the local government level and the difficulties of a large number of strangers brought together without, in the first and early stages, the social amenities which make for the smoothness of living.

The Genesis and Character of South African Towns

2. Most of the literature on the planning and development of towns is European, especially English,--with some from the USA; therefore, some discussion of the South African town as such is necessary. The European civilization of the vast, meagre lands of South Africa derives from the "vee-boer"--the Trek-boer or cattle farmer, who required large farm areas and did almost all of his trade in barter. Such settlements as there were included little more than a Government control point, with churches built later. Potchefstoom is an example of this sort of settlement, to which in the course of time was gathered retired farmers to live on smaller and more easily managed properties. Holdings were characterized by narrow frontage and great depth. In a flat and featurless country, the requirements encouraged a simple, grid-iron pattern; and the settlements were dominated architecturally by the church and church square. In contrast to the pattern in Europe, each "small holding" was a farm in miniature. And with few topographical restrictions, the spread of the town (due to the size of plots) is limited even today only by the needs and the expense of services. The conservation of good agricultural ground is not a factor. Since the cost of land is unimportant, the cheapest form of housing is self-contained individual one-storey houses.

3. "New Towns in South Africa are the homes of South Africans, the majority Afrikaans-speaking and many of them fresh from the country districts. Industry in these New Towns is almost always primary and has a great need for semi-skilled industrial workers, a need which to a large extent is being met from the surplus population of the farming districts. The character of these new towns is shaped by the needs and habits of such persons, persons brought up to regard land as their birthright and farming the only proper occupation for a man. Towns are people and people are the end product of history and geography.

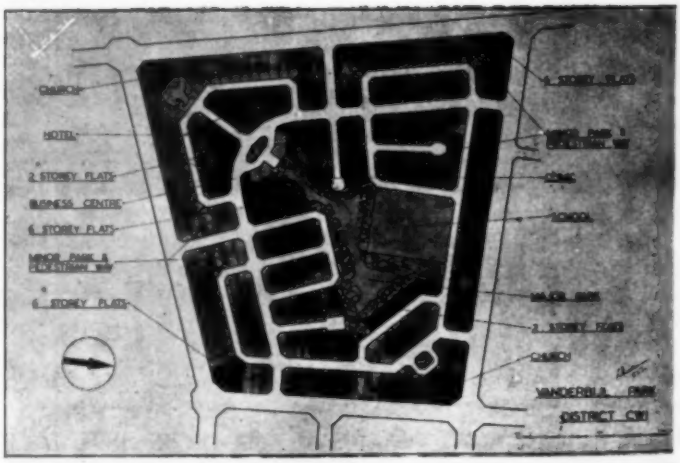
South African Architectural Record. January. 1958.



Earlier neighbourhood unit, small in area.

South African Architectural Record. January, 1958.

Recent neighbourhood layout designed on grander scale than earlier unit



Earlier neighbourhood unit, small in area.

4. "Then we have two further characteristics: the one being that nearly every family owns and garages at least one motor car and the other that nearly every family houses at least one Native servant in the back yard."

The Planning of Vanderbijlpark

5. The speed of development in a town such as Vanderbijlpark has created special economic and social problems. Another characteristic which differentiates this New Town from other towns is that circumstances have made it possible to visualize the "final shape of the town"--and this is exactly the cause of one of the greatest difficulties in New Town development:

> "Towns are living creatures following a cycle of birth, development, maturity, decay and rebirth, apparently as much a natural cycle as the nitrogen cycle. A planned town is built as mechanically as a child putting together a jig-saw puzzle. There is probably not much harm in this provided the town can reach final shape quickly as thereafter it would fall in line with natural law. However in the growing stages it is apt to look like a surrealist painting with an eye and an elbow at odd, apparently unrelated, places and to be equally difficult to live with. .....From our own experience there is much to be said in favour of not planning detail too far ahead and keeping planning flexible."

6. Vanderbijlpark was planned for some 90,000 Europeans; and now, after 11 years, it had about 25,000 or about one-third of the goal. But it cannot be said that it is now a balanced town or a complete one of 25,000 population. The social maturation both within the town and between the town and its surrounding countryside has still to come. The following characteristics distinguish Vanderbijlpark from the normal, self-generating and slowly developing South African town:

> a. "All ground is owned by one organization, the Vanderbijl Park Estate Company, closely associated with the parent industry, Iscor. This organization planned, financed and developed the town. Such an arrangement was imperative as close liaison between the town and the parent industry was necessary to ensure co-ordination. The speed of development, initially, had to be closely geared with the construction of Iscor's Steel Works.
>
> b. "Iscor in no way assisted the town directly other than that it advanced money for its development at ruling rates of interest. However, the magnitude of this assistance must not be belittled because there are few sources of capital available for New Town development both because of the magnitude of the capital necessary and the risk involved. No security for the capital can be offered in the first days and the risk, if not of failure then of a return deferred for many years, is very high.
>
> c. "The town was established and developed within existing legislation--in particular the Townships and Town Planning Ordinance and the local Authorities Ordinance of the Transvaal and no special powers were created or invoked for its establishment.

Anderson, P.R. Vanderbijlpark - Reappraisal -3

d. "The organization established by Iscor, the Vanderbijl Park Estate Company, which planned and developed the town was registered as a "company--not for profit' and such monies as are made in excess of its needs are "ploughed back" into amenities and other purposes for the benefit of the town."

This latter characteristic is quite important, and more than £1 million have to date been ploughed back into, for instance, the construction of proper roads and storm-water drainage much faster than local authorities could have done without an unreasonable tax rate.

7. In physical planning, principles then new to South Africa were first tried out at Vanderbijlpark. These were of overseas derivation and some errors occurred from a too slavish copying of foreign practice prior to an understanding of the principles behind the practice and without making the essential adjustments to suit local conditions. The town was planned as a compact European residential area with the Vaal River on the south and the steelworks and other heavy industry to the north. Technical considerations of rail access and waste drainage determined the location of the steelworks. It was originally planned that the two Native residential areas should directly flank the heavy industrial area, but later Government policy has required that these now be moved somewhat further north from the town. A ring of trees was planted around the town to "make that sharp distinction between town and country." But the company did not own and did not attempt to acquire the surrounding countryside; so the speculations of smallholding developers have somewhat blurred the distinction.

8. The European town is laid out in townships, which are grouping of housing units within the main traffic roads--with minor internal roads planned to deter heavy traffic. This makes for quiet residential areas and economies in design-in different roads for different wheel loads. It was found that the neighbourhood concept was unworkable for the following reasons:

a. Bilingual population with parallel schools for each language, and no possibility of ensuring that a township was and remained one language group;

b. Educational Department in state of flux with regard to numbers at a school;

c. Net density of South African development is much lower than that common elsewhere, and it did not produce the number of people within reasonable walking distance to support even a moderate range of shops.

d. The unit is based on such urban concepts as "community centres" and the neighbourliness dependent on living closely together, which is alien to the South African. (The 'pub', "from which a 'community centre' is derived" is blessed by neither the attitudes nor the laws of the country.)

The "townships" which were used in place of "neighbourhoods" have three primary schools and a suburban shopping area. The planning is said to be more American than English or European and to work on a scale more of mechanical transport

Anderson, P.R. Vanderbijlpark - Reappraisal -4

than of the pedestrian. This is felt to be correct for a town of this size and character.

9. Housing of the employees of the industry is a problem of vital importance. Most of the skilled and semi-skilled artisans prefer to continue renting and they must be provided for. With land cheap, the preferred single-storey, individual house is the necessary answer. Making a pleasing street picture with available materials is difficult but possible using neat houses and gardens. The South Africans, however, dislike open communal front gardens. Since Iscor's policy is to encourage private enterprise, individual or organizational, the efforts of the Estate Company have been limited to only the smallest and cheapest houses. While there is some theoretical authority over aesthetics, little actually can be done; and the result is "a colourless monotony of artfully dissimilar 'homes.'"

10. In this flat landscape there are no orienting features and few buildings are distinguished enough to serve as land marks. In early townships the addition of sharply curved loop roads proved very confusing. A flexible grid pattern has been used in later townships.

11. The long, dry and severe winter has forced a concentration on larger parks where control is more efficient and economical. Minor parks and pedestrian ways would have been preferred. Pedestrian shopping has been tried out in the major sub-urban shopping area, and similar features have been added to the plan for the Town Centre. The Town Centre is not yet started, and the question of the proper stage to introduce it is raised.

Financial Considerations

12. Departure from normal procedure for town finance are necessary in New Towns. In Transvaal, a special form of local authority and special financial provisions for limited time while the town becomes established has been recommended. Since there is neither tax rate nor property on which to levy rates at the start of a new town, other means of finance must be found. The estate company at Vanderbijlpark has undertaken the work and, by agreement, is to continue it for 20 years, carrying the initial losses and spreading the costs. To date the capital costs of installing water, sewerage and electricity totals £2,067,000 and £845.000 has been spent on roads and storm-water drainage. The total value of the improvements at Vanderbijlpark is now £11,500,000--which indicates a magnitude of operations few organizations could undertake.

Social Considerations

13. "A New Town, until trees and gardens mature, shows its planning structure very starkly and the same goes for its social life. There is as little privacy as a gold fish in its glass bowl but this is not all loss. If privacy is lost so is loneliness. On balance there is gain. If New Towns are short on art and culture there are, however, great opportunities for purposeful worthwhile living. So many things require to be done that there is a job for everyone. To feel wanted, to play a useful part in society is counted as the greatest need of modern organized man. New Towns make this possible for many to whom the opportunity could not be offered in existing big towns."

£1,000 (S. Africa) = $2,820 (US)

C.F.I.O.P.

Christian Science Monitor
ARCHITECTS BUILD A MODERN BAGHDAD
Second Section, Wednesday, April 2, 1958.

1. "Seldom in this century have important cities been thus drastically remade or started from scratch. Thirty years ago the neo-classic capitals of Canberra and New Delhi were completed--Canberra a new city in open country, New Delhi a pretentious government and civic refuge just outside crammed Delhi. Today two more capital cities are rising on virgin plans in India and Brazil. Chandigarh, center of India's Punjab state, was designed by Le Corbusier and a team of British, French and American architects. Brasilia, still in its early construction stages, is primarily the work of Brazilian architects Oscar Niemeyer and Lucio Costa. Baghdad is expected to surpass all of these capitals in the variety of style of its new public buildings.

2. "...Eight master builders of the modern world-men of many tongues--are creating a new Baghdad. Among them are--by birth--a Frenchman, s Spaniard, two Germans, and American, a Finn, a Greek, and an Italian. Probably never before in history have so many famous architects worked concurrently in one place. The final result, barring possible curtailment by the Iraqi Government, is widely expected to be one of the modern architectural wonders of the world--a new city superimposed on this ancient, sun-baked capital."

3. The following description is given of the architects and their commissions:

a. Le Corbusier of France--A mammoth sports stadium.

b. Walter Gropius, onetime head of the German Bauhaus School and now senior member of the American firm The Architects Collaborative--A 12,000 student university.

c. José Luis Sert, Spaniard by birth--A seven building embassy compound for his adopted United States.

d. Gio Ponti of Italy--Offices for the Iraqi Development Board, which has comissioned all these projects for the new city except the embassy.

e. Frank Lloyd Wright of the United States--An opera house on Edena Island in the Tigris.

f. Alvar Aalto of Finland--A large civic center.

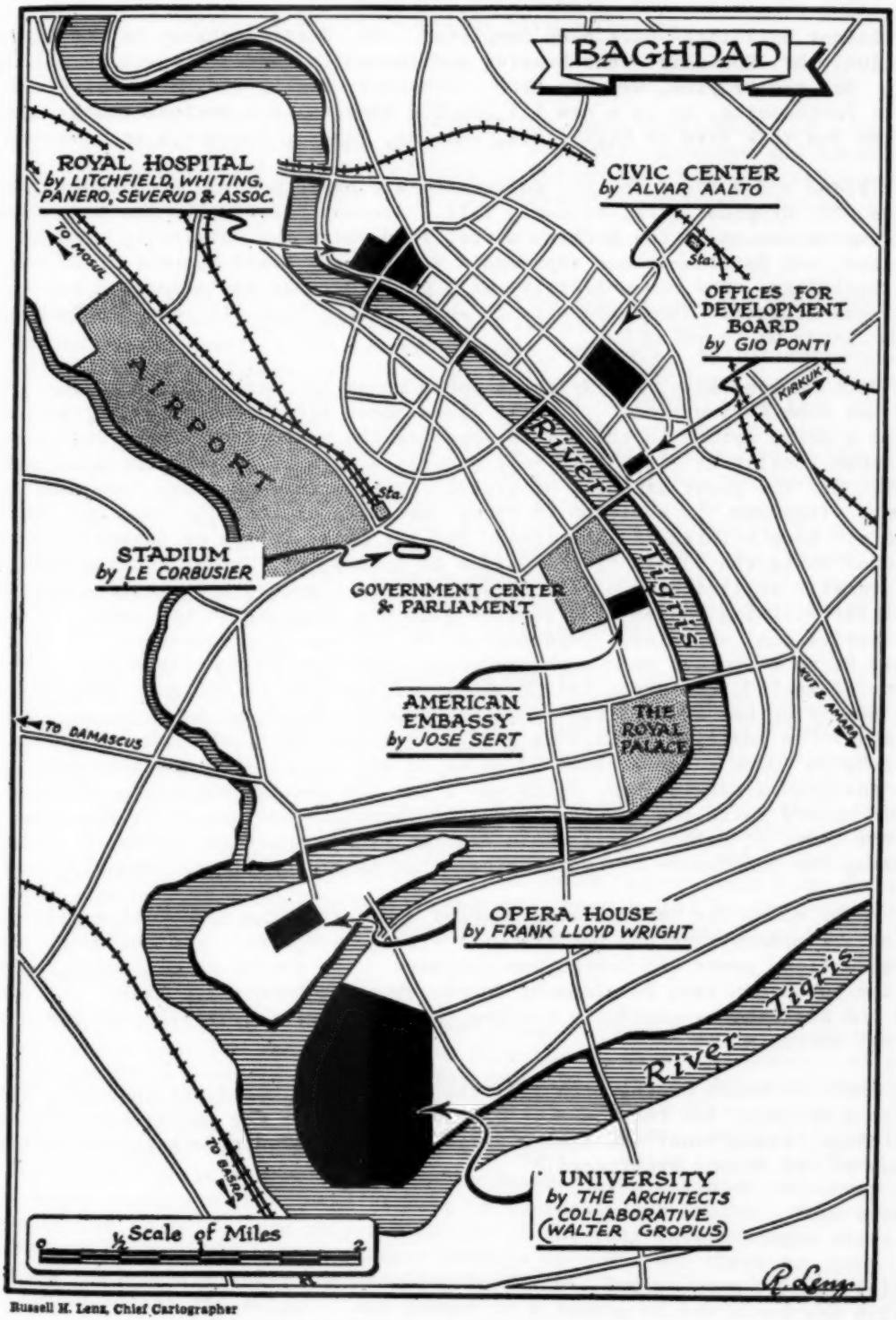
g. Werner March of Germany--A $3,500,000 museum.

h. Constantine Doxiadis of Greece--Extensive housing developments, a trade school, playgrounds, elementary schools, and a housing research center.

4. "The net result of these projects, plus the Iraq Development Board's ambitious plans for new avenues, new parks, bridges, and community centers, amounts to the eventual creation of a new city, given flavor by the ancient, dusty city of Harun al-Rashid.

5. "At the moment most of the projects are in the drawing-board stage. Two by lesser-known architects--a new $7,000,000 royal palace and $5,600,000

The Christian Science Monitor, Wednesday, April 2, 1958.



Russell H. Lenz, Chief Cartographer

New Projects in Black; Completed Ones, Gray

Christian Science Monitor. Architects build a modern Baghdad. -2

Parliament buildings--have been completed. Mr. Sert's embassy is nearing completion. Mr. Doxiadis' vast housing and community center project is well under way. But the Gropius, Wright, Alto, Corbusier, Ponti, and March buildings are still forthcoming, as is a new $11,200,000 hospital and medical center designed by the New York firm of Litchfield, Whiting, Panero, Severud & Associates.

6. "Plans and a model for the university are expected from Architects Collaborative, Dr. Gropius' firm, by early fall. Already $11,000,000 has been spent for expropriation of the orchard-dotted land where the university will be located, and Parliament has approved a development board request of $5,600,000 for buildings. The new university will pull together and enlarge a number of colleges scattered about the city in what Iraqis hope will one day be a great Arab center of learning.

7. "Not unexpectedly, Mr. Wright's opera house is audacious, colorfull--and may not come to fruition. .....The opera house site selected by Mr. Wright is on a large island in the Tigris opposite the university land. The island is known locally as Pig Island--not exactly a term of approbation in a Moslem land. But the great exponent of organic architecture proposes to rename it Edena. (Baghdad, in addition to being the scene of the "Thousand and One Nights," home of Aladdin, and throne for the noted Caliph of Baghdad, is also reputed to be the locale of the Garden of Eden.) Mr. Wright's plans make use of dramatic stylizations of all these historic themes. His sketches show a circular building topped by a shallow dome and standing in the center of a decorative pool of water. Superimposed on the gently crescent of the dome would be an elaborate open-work arabesque construction housing a statue of Harun al-Rashid, the great Caliph who ruled from 786 to 806 A.D. On the building itself he has affixed the sword of Mahomet, to serve, he says, as a television antenna. In addition to copious gardens reminiscent of the Hanging Gardens of Babylon (once located about 50 miles to the south), the American architect has designed a parking ramp patterned after the ancient ziggurats of Iraq, those upward spiraling towers which some observers believe to be the same species as the tower of Babel. This whole Arabian Nights spectacular may be delayed pending the completion of hydrological studies of the flow of the Tigris.

8 "The money for revitalizing Baghdad comes from the same till as the funds which are modernizing the country with village projects, road building, dam construction, power and irrigation programs. Its source is oil. Its controller is the seven-man Iraq Development Board, whose members--five Arabs, one American and one Englishman--carefully oversee the spending of over $200,000,000 a year in oil revenues.

9. "For six years ending with 1961 the development board has secured parliamentary approval for the spending of $104,129,200 on the construction of public buildings, educational and health facilities. Baghdad's face is now in the hands of the famous architects."

D.J.Q.U.

Humphrys, Graham.
SCHEFFERVILLE, QUEBEC: A New Pioneering Town
Geographical Review (The American Geographical Society of New York)
Vol 48: 2 (April, 1958) pp. 151-166. Illustrations.

1. This article sets forth the story of the rapid development of a new town in northern Canada from the point of view of physical, economic and human geography. Mr. Humphrys, a graduate of Bristol University, England, is at present with the Geography Department of McGill University, Montreal, Canada.

History

2. Schefferville was officially added to the map of Canada, soon after the completion of the Quebec North Shore and Labrador Railway in 1954. It is located in the heart of the Labrador-Ungava peninsula. Within three years the settlement of Schefferville has grown from a water base for an exploration camp into a bustling modern town engaged in mining more than 65% of Canada's output of iron ore. And it is more than just another mining town, for its facilities and its position as the northern terminus of a 350-mile railway have attracted other projects. Schefferville has now become one of the most important strategic and supply centers east of Quebec city. While it is the only permanent town in the interior of the peninsula, it is thought that it will soon be joined by several other mining towns as planning is implemented. The fronteer will then be pushed beyond Schefferville and the northeast mainland of Canada--and Labrador-Ungava will become a region in terms of economic and human as well as physical geography.

3. Iron deposits were first observed in the 1890's and serious investigation of their feasibility came in the late 1930's. In 1950 the target of 400 million tons of direct-shipping ore (more than 50% iron) necessary to justify the investment was proved, and plans for immediate production were put into operation. The original settlement site was found to lay above a 10-million-ton ore body, and alternate site had to be selected. With the primary stipulation that the new site should be on drift or some other soft deposit to facilitate foundation construction and the burying of service lines, a neck of land between Knob Lake and Pearce Lake was selected. The two lakes respectively provided water supply and an outlet for nontoxic sewage and waste. Just to the east a rocky mound within easy access to the proposed mines was used for an airstrip.

Physical Setting

4. Schefferville lies in the Labrador Trough, a Proterozoic geosyncline set in older pre-Cambrian rocks. The town lies two to three miles north of some low hills which separate the Ungava Bay drainage from the Atlantic drainage--with an unrestricted view to the north. Lying some 720 miles northeast of Montreal and almost in the center of the Labrador-Ungava peninsula, Schefferville's elevation is 1,681 feet above sea level. While in the province of Quebec, the town is almost surrounded by Newfoundland-Labrador territory on the east, south and west. The climate is typically sub-Arctic. Mean annual temperature is 24°F., and only two months of the year have averages above 50°. Winters are very cold with a January average of -10°; but there are long periods of sunshine and a low absolute humidity. Twelve feet of snow falls, mainly in spring and autumn. And summer is a season of low cloud and drizzly

rain. Vegetation consists mainly of lichen woodland and bog in lowlands, lichen heath on the ridges, with patches of dense willow and alder on steep slopes. Regeneration is slow, and it is found cheaper to bring lumber from the south.

Morphology of the Town

5. "Schefferville is a one-company town, built and maintained by the Iron Ore Company for its own use. Except for a few plots to the east, all of the site belongs to the company. Fortunately, its power has been wielded judiciously, and a model town is growing up." After deciding on the site, the company drew up plans in conjunction with the Quebec government. The plans were approved in their final form by the Quebec Council of Town Planning in 1953. At the base of the ridge nearest to the mines administration buildings, bunk-houses, cafeteria and the freight yeard were established. In the same area are now located the sewage plant and the central repair shop for the maintenance of mine equipment. To the north, overlooking Pearce Lake is a beerhall and social club. With the growth of the town a hospital, a laundry and postal facilities (all operated by the company) have been added nearby.

6. The main residential zone is situated on an island. Company employees live with their families in subsidized houses and apartments, paying rents ranging from $45 to $80 per month. There are nine different styles of buildings, of sound construction and with all modern conveniences. In the southwest corner of the townsite is the business section, made up of a bank, two stores, a cinema, a restaurant, a garage and gas station, and a hotel. The Roman Catholic cathedral stands near the center of the town and dominates the scene. It is the seat of Bishop Scheffer of Labrador-Ungava, after whom the town was named. A public school and a French-speaking Catholic school are nearby. A United Church and an Anglican chapel are located in this area. Streets are unpaved, but paving is planned and sidewalks have been laid down.

7. Schefferville has participated in the building of the Mid-Canada Defense Line, and serves as the supply center for the work on the eastern arm. On the west side of the airstrip are the fire station, the offices of the town's two regular airlines and the aeradio shack. Nearby is the McGill Sub-Arctic Research Laboratory, which is operated by McGill University under contract to the Canada Department of Transport.

Transport and Communications

8. There are no road connections to Schefferville. Two trains per week bring in passengers, mail, goods for the stores, construction materials, mining equipment and supplies to be flown farther north. This is a 12-13 hour trip in winter, but it takes up to 20 hours in the summer (when the ore trains have priority.) Of the two companies flying regular to Schefferville, Quebecair Incorporated carries paying passengers and freight six days a week. The other company, Hollinger Ungava Transport, is a subsidiary of the Iron Ore Company and carries only company personnel and freight twice a week. Telecommunication with the outside world is by public telephone and private-line teletypes. A permit has been granted for the construction of a radio station in the spring of 1958.

Fig. 3—Gagnon mine, 5 miles northwest of Schefferville, in winter.

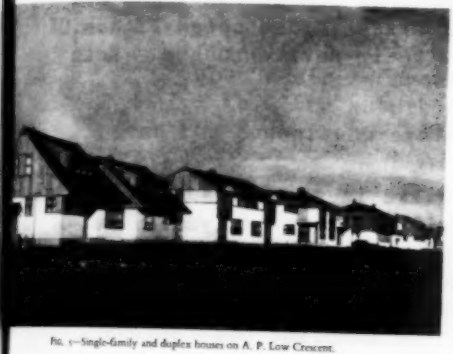


Fig. 5—Single-family and duplex houses on A. P. Low Crescent.

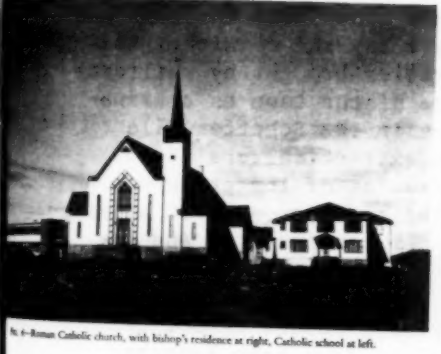


Fig. 6—Roman Catholic church, with bishop's residence at right, Catholic school at left.

Fig. 7—Esso depot, with gas station and garage, old Hudson's Bay Company store, movie, and bank.

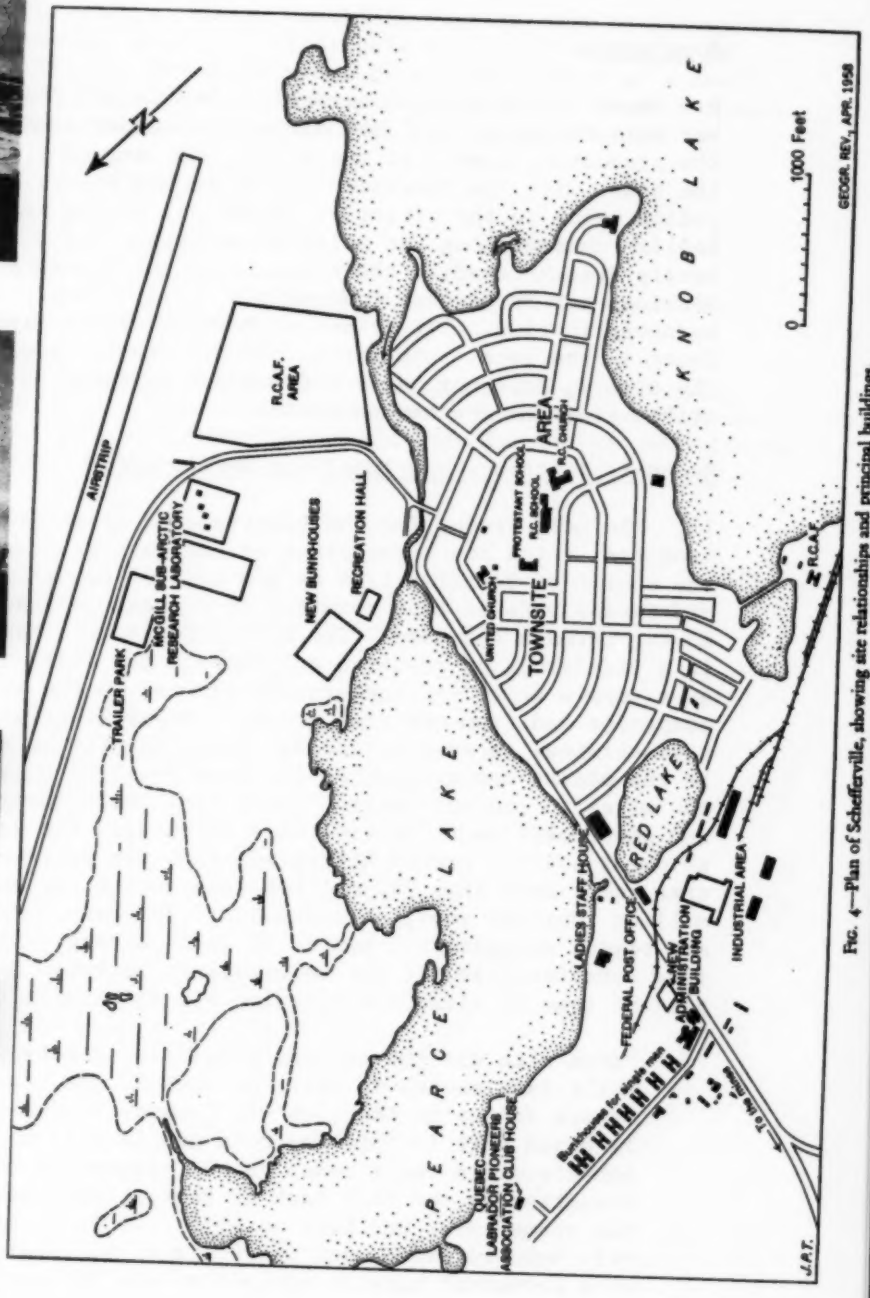


Fig. 4—Plan of Schefferville, showing site relationships and principal buildings.

Humphrys, Graham. Schefferville, Quebec: A new pioneering town. -3

Population

9. There are about 1,600 people living in Schefferville during the winter, but this may go up to 3,000 during the summer with the influx of workers for the production season at the mines. Of permanent residents only 450 live in the town, with the remainder living in bunkhouses and (in the summer) exploration camps in the vicinity. About 80% of the people speak French, with English common among the salaried workers. While the population is predominantly French-Canadian there are important elements of British, French, Italian, American and Portuguese immigrants. It is a young population with a very high turnover in time. Two tribes of Indians of the Algonkian linguistic group are found in the area. One tribe, the Montagnais, are Christian and speak French. Of the others, Naskaupi, only a few speak anything but their native tongue. Both tribes live in very bad conditions.

Economic Functions and Immediate Development

10. The main reason for the existence of Schefferville is the extraction of iron ore, which now takes place at the rate of 12 million tons per year. But the choice of Schefferville as the control center of the eastern arm of the Mid-Canada Defense Line resulted in a great increase in air traffic and goods moving through the town. The McGill Sub-Arctic Research Laboratory is engaged in a wide range of research projects in the area. The seaplane base serves as a supply depot for exploration parties in the interior, both from mining companies and from official groups. Since Schefferville is the northernmost rail terminus in eastern Canada, large quantities are flown from the town and to the mining concessions on the west coast of Ungava Bay and to Nickel Belt, 500 miles to the northwest. Cheap fuel (bulk quantities brought by railroad) and government radio service have encouraged the use of the town as a transshipment point. Proved high-grade iron ore reserves in the Schefferville area total more than 380 million tons, which (at an extraction rate of 15 million tons per year) should last 25-30 years. Reserves of low grade ore are beyond estimation. Since 100 million tons of the ore lies some 30 miles from Schefferville, it may be necessary to build a new settlement. And the present town is already outgrowing its original site.

> "Even with all the company-subsidized construction, houses cannot be built fast enough to meet the demand, and trailers have been brought in and set up by the Iron Ore Company on the east side of town. It is hoped that in this way more people will be encouraged to make Schefferville their home. A new recreation center is under construction on the east bank of Pearce Lake, and a federal post office was opened near Red Lake in 1957. ...It is expected that the airstrip will soon be paved, and the R.C.A.F. is considering the installation of a permanent base to administer the Defense Line."

Future Prospects

11. The ultimate end of iron ore and base metal exploitation is forseeable, even if the low-grade ore becomes economical. It is felt that, alternatively, industry might be attracted by the high hydroelectric potential (minimum of 5 million horsepower) of Labrador-Ungava, located at Grand Falls to the southeast and the Kaniapiskau River to the northwest. Large scale electro-smelting,

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using local ores, is considered a remote possibility but not one to be ignored. In the long-run even permanent military installations might turn out to be only temporary. More likely is the maintenance of the settlement as a small service center, with a possibility of a modern air terminus for trans-shipment. It is expected that several other new mining towns will shortly appear in this part of Canada.

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Editorial Comment

The illustrations show how sadly the garden city town planning clichés appear when transported to an artic site.

Religion and the single men are effectively separated from one another. The "business section" straddles the entrance road from the west. House design is ultra suburban. Any variations in way of life imposed by the climate and the topography are ignored.

D.O.Q.

Northcroft, Nancy
LAND AND PEOPLE IN NEW ZEALAND
Canterbury Economic Bulletin, No. 394, October, 1957. Christchurch, New Zealand.

1. This is a discussion of the problems of increasing town growth as it effects the distribution of the population and the use of land in a country where very few primary planning surveys have so far been done. A disproportion in distribution between the two islands and the growing concentration in the larger towns are considered in terms of both agricultural and municiapl economics, as well as planning. Miss Northcroft is Regional Planning Officer with the Christchurch Regional Planning Authority, Province of Canterbury, New Zealand.

2. Distribution of Population: New Zealand has grown from one to two million since 1900, and another million are expected by 1975. While the population was about equally devided between the North and South Islands in 1901, the present distribution is about 68% on the North Island and 32% on the South Island. And the percentage living in towns has increased from 43 to 64 in the same period. The larger towns have grown relatively faster than the smaller; indeed statistics show that more than 50% of the population increase took place in the ten towns (out of a total of 130 communities) having more than 25,000 inhabitants. In the province of Canterbury the dominance of the towns is quite impressive: There are only nine towns with populations over 1,000, but they account for more than three-fourths of the 280,000 inhabitants of the province. Even more marked is the dominance of the city of Christchurch, which itself has 63% of the provincial population and continues to increase its proportion.

3. Future Trends. The question of whether there is a need for a change in the distribution of population in the province is raised. Also it is wondered if the fact that in twenty years there may be relatively fewer people in the countryside affect the ability to expand agricultural production. A view that further mechanisation cannot materially raise the average level of production is presented, and the need for further investigation is stated. The importance of more knowledge on trends is held necessary for the planning of services and estimates of manufacturing potential in Christchurch, for example.

4. More land for the Towns. With 65% of the population of New Zealand living in towns of over 1,000 and at an estimated overall density of eight persons per acre, rough estimates of future land needs are made on the assumption that these figures will remain constant.

a. With a total population of two million, it is estimated that urbanised parts of towns now occupy 162,500 acres.

b. In 1975, with a population of three million, the urbanised parts of towns are expected to occupy 243,750 acres.

c. The additional land required, therefore, for urban purposes by 1975 is estimated to be 81.250 acres.

Since the Government is breaking in about 40,000 acres per year of new farm land, the loss of 80,000 acres to urban uses does not at first seem great. But three points must be considered. First, there is a greater loss of farming than the land actually urbanised; for nearby farms deteriorate and drop in production. Second, the land taken for urban uses is usually good farming

land: well drained, fertile, easy country; and it will take a very determined local authority to keep the townsman from getting the land he wants. Third, with the expansion of towns the type of farming changes in this general sequence: the town replaces the market garden; the market garden replaces the dairy farm; the dairy farm replaces the sheep farm, etc--in ever widening circles. It is suggested that the net result of these three factors will involve a loss of land to farming equal to that actually taken for urban uses. Thus farm production would face a substantial loss of production and a general disturbance of the farming pattern. It is felt then that farm production has nothing to lose and a good deal to gain in keeping the growth of towns in check or at least arranging for it to take place in as orderly way as possible.

5. The Uses of Urban Land. The needs of the towns must not be forgotten, however; and in a young and expanding country like New Zeland, the towns will and must grow. So the question is really this: could any changes be made in the present design and standards of the towns that would benefit them and at the same time save land? An indication that there are possibilities is seen in the fact that if the density were changed from the present 8 per acre to 12 per acre, the urbanised land would be sufficient to support the projected population. To see what this might mean in terms of land use and in the design and standards for the towns, the following table of land areas by use in the main urbanised part of the Christchurch Region is given.

Land Use	Area in Acres	% of Total Area
a. Residential	10,588.80	47.30
b. Commercial	176.68	.76
c. Industrial	1,102.65	4.94
d. Public and Semi-Public	1,094.49	4.90
e. Railway	198.50	.87
f. Open space (parks etc.)	1,281.05	5.74
g. Primary (farming etc.)	1,924.20	8.61
h. Vacant: Disused Quarries & Tips	67.20	.30
i. Vacant: Scrub & Swamp	313.70	1.40
j. Vacant: Other Vacant	1,702.33	7.61
k. Roads and Streets	3,775.89	16.85
l. Other	160.88	.72
TOTAL	22,386.37	100.00

It is noted that nearly 18% of the land in the city is not used for urban purposes (this includes items g.h.i.j. and k). Part of this is because frontage development has made it expensive to road the back areas. And if all such land could be used for residence, shops, streets, parks, etc. the density would at once increase to 10.3 per acre. Even subtracting out unbuildable land, some 35,000 people could be accommodated by this land to bring the density to 9.7 per acre. Since nearly half of the land is presently used for residences, any great savings in urban land would have to come from changes in this use. The typical pattern is to build on quarter-acre lots. According to the 1951 census, however, 53% of the houses in New Zealand were occupied by families of three people or less; and 32% were occupied by households of only two persons or less. The net residential density for single houses in Christchurch now averages 4.7 houses per acre. If only one fourth

Northcroft, Nancy. Land and people in New Zealand. -3

of all the houses had been built as flats of various kinds (at a net residential density of ten dwelling units per acre) to cater for some of the small households, the overall density would increase to 8.6. This .6 persons per acre increase can be added to the 9.7 total using some of the vacant land; and the overall density is increased to 10.3 persons per acre. It is felt that other steps may be taken toward increasing the overall density to 12 per acre through a reduction of the quarter acre section and by raising the net density in flats above ten to the acre. Economies of more than £30 million in street construction costs alone are seen in this course of action.

United Nations, Economic Commission for Asia and the Far East
AGRICULTURAL DEVELOPMENT PLANS OF COUNTRIES OF THE ECAFE REGION, in Economic Development and Planning in Asia and the Far East: Agricultural, Economic Bulletin for Asia and the Far East. VIII: 3 (November, 1957) Ch. 2.

1. While the plans presented here are within the context of agriculture, they also include other aspects of planning and development in order to make them comparable between countries. "...the item 'agriculture' includes in addition to crop and livestock production, also irrigation, land development, community development and extension, forestry, fisheries, multiple-purpose hydraulic projects, and investigations of future water resources for irrigation." So defined, agriculture shares a variable proportion of the planned public developmental expenditure--ranging from 1/12 to nearly half--in the several countries.

Objectives and Targets.

2. Apart from the most generally stated aims, such as economic and social advancement or the achievement of higher per capita incomes, balance of payments is of first importance in all but one country. Three objectives follow from these considerations:

a. That of achieving virtual or at least a greater degree of self sufficiency in regard to the staple items of food,

b. That of producing at home increasing amounts of other agricultural products which have traditionally been entirely or largely imported (eg. sugar, fruits, fibres, oil-seeds) thus saving further in foreign exchange,

c. That of increasing the production and exports both of established export crops and of crops which were previously cultivated to a small extent or not at all, but for which there is a foreign market demand (such as cofee, canned fruits and sea products.)

3. Diversification of agriculture is seen as a way by which dependence on one or few export crops can be reduced, as in Burma, Cambodia, Malaya. Another function of diversification of agriculture is that of meeting the demand for a more varied diet expected or planned to result from higher per capita incomes, as in India, Japan and Pakistan. The objective of broadening the agricultural base of raw materials for the extension of domestic manufacturing industries was mentioned by Burma, India, the Philippines, and China. There is considerable variation among countries concerning the comprehensiveness of the targets set. Plans like those of Taiwan, India and Japan are rather detailed with regard to production, trade and consumption, as well as to the means to be use in achieving the output targets. Plans of Afghanistan, Cambodia, Malaya and Nepal, on the other hand, do not set output targets (other than very roughly) and concentrate on input targets such as fertilizer.

4. Although consumption is the ultimate objective of all economic development, few of the plans have targets expressed in these terms. A gradual increase in consumption with the implementation of economic development plans is often assumed. Projection of import requirements can be valid only to the extent that projection targets are realistic, and only China (Taiwan), India, and Japan included import targets for major agricultural products: eg. grains, oil-seeds, oils, fibres, etc.

5. The forms of input for which targets are most often established are:

a. Area to be covered by irrigation
b. Quantities of fertilizers to be produced and distributed
c. Areas to be planted with improved planting material.

These make up the means upon which many of the plans rely for achieving increases in short run agricultural production. Good information is given in most of the plans on these inputs.

Formulation of Plans

6. "In most countries of the region the task of assessing the needs and direction of agricultural development is considered to be a governmental (or quasi-governmental) responsibility with only marginal participation of the public in this process." It is generally regarded as a task involving collaboration between the technicians and administrators of the central planning organization and the administrative ministries or departments concerned." Arrangements for initiating and working out broad developmental schemes can involve one or more patterns of interaction between the central planning agency and the administrative departments, but in most cases the plans are submitted for approval to the Cabinet and legislature. The need for collaboration between various experts and administrators in plan formulation is universally recognized. However, the extent of collaboration among the central government departments varies widely; and absence of close collaboration may result in neglect of the major limiting factors or the lack of synchronizing the different inter-dependent schemes. When collaboration between central and local governments is missing, results may possibly be even worse.

7. An increasing role is expected for non-governmental experts such as university personnel and others. "In many cases, university personnel generally come into the picture as critics of the first draft of a plan published to elicit the reaction of public opinion. At times, however, they are entrusted with research tasks having a bearing on planning, or are appointed members of non-governmental groups constituted to advise governments on planning." Especially good relations have been worked out in Burma and Japan. With reference to the general public, it is very important for the planner to know how the cultivator, and the groups which represent him, feel about certain schemes. This is clear in the introduction of new plants, and a good extension service may help here.

Implementation of Plans

8. Administrative machinery for implementation is reviewed for both unitary and federal governments. Some of the problems in implementation have to do with the slow pace of effectuation relative to the plans themself. This is at least partly due to insufficient working-out of detailed province, district and village plans--particularly at the project level. Another problem is procedural delays in granting financial approval which in turn holds back the actual start of work. India, Ceylon and Pakistan have made significant attempts to solve this latter problem. The coordination of implementation also must be carefully worked out if major delays are to be avoided. Examples of such administrative coordination are found in the experiences of India, Pakistan, Ceylon and Burma.

Progress and Revision of Plans

9. The need for a periodic stock-taking is all the more important where data is insufficient, staffs are mainly untrained, and comprehensive, large-scale economic development programmes are new to a region--thus making agricultural development plans tentative. Also basic changes in the situation may call for either shifts in programme emphasis or changes in the means of implementation. The usual department progress reports (quarterly, semi-annual or annual) are often insufficient for adequate evaluation. India has recently set up 20 special evaluation units for her development projects. It has been found that intensive studies of particular problems by teams of experts independent of the departments worked best. The need for evaluation is being felt in several other countries.

GENERAL

D.H.M.N.

Davis, Kingsley
RECENT POPULATION TRENDS IN THE NEW WORLD: AN OVER-ALL VIEW
Annals of the American Academy of Political and Social Sciences, March 1958. Issue entitled: "A Crowding Hemisphere: Population Change in the Americas." pp. 1-10.
312 (7/8)

1. This is an overview of recent demographic developments in the Americas in an issue devoted to the subject and edited by Dr. Davis. The author is now Professor of Sociology and Social Institutions at the University of California. He formerly taught at Columbia, Princeton and other universities and in 1956-57 was a Fellow of the Center for Advanced Study in the Behavioral Sciences. He has written widely on demographic and sociological studies.

2. The Western Hemisphere has seldom been treated demographically as a single region, but "the Americas have more in common than is ordinarily stated" and "their differences are in many ways complementary and interdependent." One indication of this is the amount of trade which takes place between the various American nations, another is travel between countries of the hemisphere as opposed to those beyond. The two broad bases of similarity, besides geographical contiguity, are:

a. The dominant institutional structure and intellectual outlook derive from Europe; and

b. These elements have everywhere been modified by New World conditions.

Of the sharp cultural differences which do exist, some grow out of the divergent regions of Europe itself while others stem from the persistence of indigenous cultures or the stage of economic development. But the derived outlook is broadly similar. A sharing of a sense of being involved in a new and expanding region with great potentialities, as well as a sense of freedom from some of the constriction and historical antagonisms of Europe, is added to the fact that the Americas are less divided by linguistic diversity than any major region of the world.

The World's Fastest Growing Populations

3. During recent decades, while the earth's human population has been increasing faster than ever before, the Western Hemisphere has exceeded the world rate of increase. Moreover, the part of the hemisphere which lies south of the United States (the Caribbean islands, Central America, and South America) has shown the most rapid human increase of any major region of the world. The entire hemisphere increased from about 277 million in 1940 to about 366 million in 1955--a 32% increase in fifteen years. The average increase per decade since 1920 has been 17.5%, which is 1.5 times the rest of the world taken as a whole. And like the rest of the world, the growth rate has recently tended to increase.

4. It is necessary to remember that the subregions of the hemisphere do not contribute equally to the increase. The most important dividing lines is that between the highly industrial part (comprising Canada and the United States) and the less industrial part to the south. For convenience the part south of the USA is called "Latin America," and its population has increased from 90 million in 1920 to 183 million in 1955--or an increase of fully 100% in 35 years. The part called "Northern America" (Canada, USA, Alaska, Greenland,

Burmuda, St. Pierre, and Miquelon) has also reached 183 million inhabitants, but it already had 117 million in 1920--so its rate of increase was only 56% or little over half of the Latin American increase. However the Northern American picture is best compared to other industrial countries (which have generally grown more slowly than underdeveloped areas), and among such areas Northern America is surpassed only by Oceania and Japan.

5. There is little reason to believe that the rapid population growth of the Americas will soon cease, and the United Nations Population Branch has estimated that the population of the entire hemisphere will grow from 403 million in 1960 to 905 million in 2000--a gain of 125%. The high estimate of the population for 2000 runs to 976 million, while the low estimate is 719 million. Demographically, the main reason for the great growth of population is the widening spread between birth and death rates, with the relative influence of fertility and mortality different in Northern and Latin America. The secondary reason for growth is continued immigration, especially in Canada. This has been of lesser importance in the United States recently and still less in much of Latin America, but it should not be ignored.

Demographic Causes in Canada and the United States

6. It is well known that Canada and the United States underwent a long decline in birth rates beginning far back in the 19th century and extending to the 1930's. But after 1940 they sustained a marked rise in births: The crude birth rate in the United States, for example, reached the level shown in 1925 (though not for any earlier year) in the period 1951-1956. Although crude, these indications represent a substantial reproductive recovery in both countries. The drop in death rate in the United States has been generally slower than the drop in the birth rate from the 1860's to the 1930's. Thus, despite immigration, the rate of population increase has steadily declined. Canada showed the same pattern from 1910 to 1940. Then the birth rate rose in both countries after 1940, and the rate of population growth increased sharply. The rise in the birth rate was so sharp that it can be calculated that in the United States this rise has been more than four times as important as the decline of the birth rate in producing the increased population growth; and in Canada it is five times as important as the death rate decline. Substantial immigration came to both countries after the war; the United States had the greatest absolute number and remains the world's greatest immigrant-receiving country, while Canada's immigrants made up a far greater proportion of the population and contributed greatly to the upsurge in population. Thus both decreased mortality and increased immigration are only secondary to increased fertility in the variation of population growth rates in industrial Northern America.

The Pattern of Demographic Change in Latin America

7. The pattern in most Latin American nations is quite different from the Northern American countries. Only Argentina and perhaps Uruguay have shown long declines in birth rates. The crude birth rates have tended to persist at 40 or 50 per thousand. There was no recognizable decline during the depression and no rise since the war; thus the acceleration of population growth in this area is clearly not due to increase in fertility. Nor is it due to immigration, for only three Latin American countries have received a substantial influx of immigrants since the war. We are left with a decline in mortality,

and statistical analysis shows that the average percentage of decline in annual death rates has increased from 6.0 (between 1920-24 to 1925-29) to 17.1 (between 1945-49 and 1950-54). It is calculated that at the present rate Mexico's population will double every twenty years and increase tenfold in 67 years,--with other countries (including El Salvador, Venezuela, Guatemala, Honduras, Panama and the Dominican Republic) also approaching this situation. The temperate and more industrial southern half of South America (especially Argentina and Uruguay) will probably show a lower future population growth than Latin America as a whole.

Behind the Demographic Pattern

8. The combination of the feature of being a "new" region with that of being one in which European culture is everywhere dominant is especially interesting. Latin America is the only major part of the world which is peopled by colonizing Europeansand yet is preponderantly agrarian and non-industrial. Aside from parts of Europe itself, all other underdeveloped areas are non-European in race and culture. Within their new and relatively empty territory, the people of Latin America have more easily been transmitted the modern techniques of death control because of their European background. This also helps explain their expansionist attitude. On the other hand, while parts of the Caribbean and Central America are crowded, the region generally has a comparatively low population density relative to resources. Indeed, South America may be described as "still an empty shell, fully peopled near the coasts but almost empty in the interior." Latin America as a whole makes up 16% of the world's inhabitable land area, but it has only 6.8% of the world's people. The area feels then its opportunities are still abundant--hence the belief than population increase is good, and the favoring of high birth rates and brisk immigration.

9. The social order brought by the colonists to Northern America was not the more feudal and stratified type found in southern Europe, but the more competitive and industrialized kind from northwest Europe. The thriving of this order in Northern America kept the population of this area growing faster than that of Latin America until about 1920, but the demographic effects of mature industrialism constantly slowed the rate of increase through the depression of fertility. The rebound of the birth rate in the 1940's and the 1950's was greater in the US and Canada than in industrial Europe because Northern America is a new area in which the restraints on fertility do not derive mainly from lack of economic opportunity. Only Australia and New Zealand (other than the very special case of Japan) have exceeded Northern America among the industrialized nations with regard to rate of population growth. The reason is that they are even "newer" than the US and Canada. It is held unlikely that either Northern America or Oceania will repeat the rates of increase they exhibited earlier. They have been unable to match the decline in mortality in underdeveloped areas, especially Latin America.

Some Future Implications

10. One likely consequence of the present rates of population increase is a radical shift in the population balance between Northern and Latin America. While the United States-Canadian showed a ratio of 1.3:1 to the rest of the hemisphere in 1920, it will probably appear as 0.8:1 in 1975 and about 0.5:1

in 2000. The United States cannot be expected to remain the demographic giant it once was, and by 1960 its ratio to the rest of the hemisphere will have been reduced to 0.8:1. Of course sheer numbers do not indicate proportions of power, but when other things are about equal they are of great importance. Northern American countries "may have to rely increasingly upon human capacities rather than upon human numbers."

11. "If rapid population growth intensifies economic problems, it may weaken rather than strengthen a nation." In Latin America, where the growth rate is great and the economies weak, such a prospect is possible. The question to be answered is whether the population growth is from economic development or from external factors, and there are indications of the latter. The present economic prosperity masks any adverse economic effects of the situation; but should such economic growth stop, "the population expansion would continue until the unfavorable effects of poverty on mortality more than matched the favorable effects of outside influence." Serious imbalances of Latin American economies are indicated by United Nations studies. "Either the economy will eventually fail to move ahead, in which case the death rate will ultimately be pushed up; or the economy will continue to gain, in which case fertility will eventually be depressed." It is known that presently the number of living children per family is greater than ever before--indicating greater strain on the resources of parents. Also the movement of millions of people to the towns and cities increases the costs and inconvenience of children. "The effect of present trends is therefore such as to cause those trends eventually to subside. Accordingly, the important question is not whether the amazing population growth of today can be sustained indefinitely, but when it is likely to cease." While it can be held that the Western Hemisphere can support fairly well a billion people, it is quite true than the prospect of that many is unpleasant; and a half a billion could be supported just as well or perhaps far better.

C.H.N.

United Nations, Economic and Social Council
CONSIDERATION OF THE ESTABLISHMENT OF AN ECONOMIC COMMISSION FOR AFRICA
Certain questions related to the establishment and development of regional economic commissions. E/3042, 6 February 1958.
341.16: 338 (6)

1. This note by the secretary-general summarizes significant aspects of the terms of reference and organization of the three existing regional economic commissions. In establishing the proposed Economic Commission for Africa, account will need to be taken of conditions peculiar to the region; but the summary of information on existing commissions will be useful.

2. The establishment of the Economic Commission for Europe and the Economic Commission for Asia and the Far East (ECE and ECAFE), came primarily from a recognized need to give effective aid to the countries devastated by war. Both were established in March, 1947 by vote of the Council, Fourth Session. The Economic Commission for Latin America was established by the Commission, Sixth Session, 25 February 1958.

3. "The question of establishing an economic commission for the Middle East was first raised at the eighteenth meeting of the Council on 27 March 1947 during the discussion of the establishment of ECE. At its second session, the General Assembly adopted resolution 12 D (II) inviting 'the Economic and Social Council to study the factors bearing upon the establishment of an economic commission for the Middle East.' At its sixth session, the Council adopted a proposal to make an Economic Commission for the Middle East...The ad hoc Committee met at the Temporary Headquarters of the United Nations from 15 April to 1 June 1948. Its report, containing draft terms of reference for a regional commission for the Middle East, was not acted upon by the council."

4. "The action of the Council in establishing ECE and ECAFE did not include arrangements concerning Ethiopia and the war-devastated areas in North Africa. A member of the Council on 11 March 1947 tabled a draft resolution recommending 'that a special economic commission be set up for North Africa and Ethiopia ..... The proposal made in this draft resolution was not approved by the Council. After the fourth session, the question of the establishment of an economic commission for Africa was raised from time to time during the sessions of the Council. In 1951, the group of experts appointed by the Secretary-General, at the request of the Council, to study measures for the economic development of under-developed countries, recommended in its report (1951) the establishment of an economic commission for Africa and the provision for it of an international secretariat."

5. Geographical scope, as well as membership and associate membership and the special case of non-self governing territories, are discussed for ECAFE. This section brings out many problems which are likely to have their parallels in Africa. One point which is clear from the discussion is that the status of any country or territory within such a Commission may well change over time.

6. A very important aspect of the work of the economic commissions has to do with their relations with inter-governmental organizations other than specialized agencies. The practice, following that of the Economic and Social Council, has been to invite representatives of any inter-governmental organizations to participate in a consultative capacity in the consideration of any matter of particular concern to such an organization. Both ECAFE and ECE have found this function to be an important part of their operations.

United Nations, Economic & Social Council. Consideration of the establishment of an Economic Commission for Africa. -2

a. ECAFE has, since its second session, worked in cooperation with what is now the Economic Organization of the Commissioner General for the United Kingdom in South East Asia. And since the establishment of the Committee for Co-Operative Economic Development in South and South East Asia (Colombo Plan), relations have been established between the ECAFE secretariat and the Consultative Committee. These relations have included attendence by the Executive Secretary of ECAFE and by some staff members at meetings of interest to the Commission.

b. ECE has been in consultation with member governments of the Emergency Economic Committee for Europe, the European Coal Organization and the European Central Inland Transport Organization with a view to the termination of these. It was decided that such cooperation should be initiated by the Commission with the interests of ECE in mind. Later, a number of inter-governmental specialized and technical organizations, particularly those involved in inland transport, have become associated with ECE. These have included: the Central Commission for the Navigation of the Rhine, the Central Office for International Rail Transport, the Customs Co-operation Council, the International Conference for Promoting Technical Uniformity in Railroads, the International Institute of Refrigeration and the International Institute for the Unification of Private Law.

c. ECLA has worked out arrangements for co-operation with the Inter-American Economic and Social Council (IA-ECOSOC), by which representatives of the latter organization can attend meetings of the Commission. At the same time IA-ECOSOC may propose items for inclusion in the provisional agenda. This relationship of attendance at meetings in a consultant capacity is reciprocal. A more limited arrangement, including exchange of documentation and occasional attendance at meetings, has been established with the Caribbean Commission.

7. Concerning the headquarters or working site of such a regional economic commission, it has been generally felt that its location should be located at the site of the appropriate regional Office of the United Nations, if established. Since there was no regional office of the UN in Asia and the Far East, a provisional site was selected. Santiago was selected as the headquarters for the ECLA com. in the original terms of reference. Sub-regional offices (except for ECLA's Mexico City, Washington and Rio de Janeiro offices) have not generally been granted appropriations.

Note: ECLA = Economic Commission for Latin America

E K I S T I C S

HOUSING & PLANNING ABSTRACTS

CLASSIFICATION SYSTEM USED BY DOXIADIS ASSOCIATES

A The Problems

B The Policies

C The Programs

D People, Development, and Ekistics**
- Geographic factors
- Social factors
- Industry
- Agriculture
- Transportation

E Houses

F Structures (Exclusive of Houses)

G Community services
- Utilities and Social Services

H Regions

I Major urban centers

J Market towns
- Medium-sized and small towns
- New towns

K Villages
- Rural land

L Farms

M Surveys
- Census data
- Topographical surveys

N Research (and Technical Education)

O Planning (and Landscaping)

P Financing

Q Urban land

R Labor

S Materials

T Construction
- Systems of Building and Costs

U Implementation

V Management

W Administration

X Legislation

**Refers to centers of activities in relation to their surrounding regions.